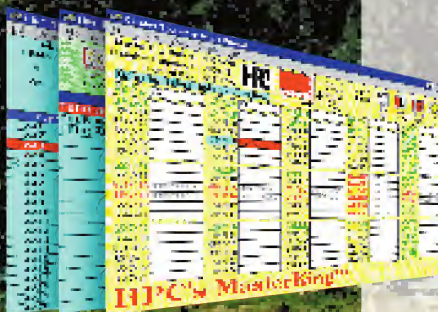


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**CODES**  
1997 Ford Escort Series  
— Page 152 —

# The National Locksmith®

July 1997  
Volume 68, No. 7



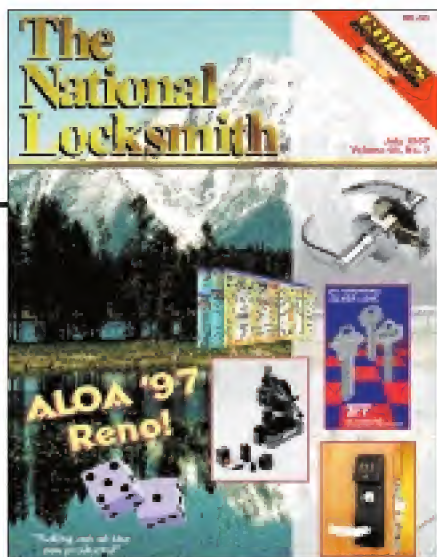
**ALOA '97  
Reno!**



"Rolling out all the  
new products!"



**On The Cover...**



The only sure bet you can make at this years ALOA '97 Security Expo in Reno, NV is on the many new product introductions. Place your bet on a few.

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# CONTENTS

The National Locksmith July 1997 □ Vol. 68, No. 7

## FEATURES

**18**

### Opening New Doors, Part 3

*The conclusion of our door and frame installation finishing with the threshold and door hardware.*

**30**

### The 1997 Volvo, Part 2

*This month we conclude the series with the trunk and glove box locks.*

**40**

### Weathering External Gate Problems With Detex

*Alarmed exit control lock designed for outdoor applications.*

**50**

### ALOA Exhibitors Listings & Booth Map

*Your map to the ALOA Convention in Reno.*

**COVER  
FEATURE!**

**52**

### Showstoppers

*See these and many more products at the ALOA Show in Reno.*

**74**

### Setting New Rekord's

*A new design in key machines.*

**100**

### Computer Software Providers

*Software for the computer locksmith.*

**104**

### Key Control + Marketability = MAXiS

*The MAXiS patented key control system is effective, economical and user-friendly.*

**114**

### Media Relations

**116**

### The Forensic Locksmith Strikes Again

*Was the suspected perpetrator guilty or innocent?*

**120**

### Open Your Eyes!

*A good first impression can mean everything.*

**122**

### S. Parker Cylindrical Leversets

*Grade 2 leverset installation.*

**132**

### Magnet Madness

*Magnetic use is becoming more prevalent with each new product.*

**139**

### Modern Safe Locks Tech Bulletin

*Sargent & Greenleaf 6709*

**CODES**

**152**

### 1997 Ford Escort Series

*10100-12099 series.*

**164**

### Opening an SLS

*Dale and little Tommy tackle a TL30 SLS money chest.*

**170**

### Wooden Wonders

*Beautiful and functional wood workings.*

**178**

### NLSA Is Now SHDA

## DEPARTMENTS

- 7** COMMENTARY
- 8** MANGO'S MESSAGE
- 12** LETTERS
- 44** BEGINNER'S CORNER
- 72** BUSINESS BRIEFS
- 73** LOCKSMITH CALENDAR
- 88** AUTO OPENING

- 102** THE LIGHTER SIDE
- 128** THE WEB ZONE
- 129** EXPLODED VIEW
- 142** TECHTIPS
- 151** THRU THE KEYHOLE
- 177** REED REPORT
- 184** TEST DRIVE

**Click on the article  
you wish to read**



# COMMENTARY



<http://www.TheNationalLocksmith.com>  
User name: national User ID: G5fh84

## You've just entered...The Web Zone

When I was a kid, if you wanted information it meant a trip to the library and a struggle with the Dewey Decimal System. Last night I wanted data on where I might find a campground not too far from Chicago. I fired up the World Wide Web on the internet, punched in <http://www.woodalls.com> and was able to search a database of over 14,000 campgrounds in about thirty seconds. It's a brave new world.

There are so many web sites of interest to locksmiths, the only problem is deciding where to spend your time. To help you enjoy your web surfing experience, we've premiered a new monthly department in this issue. Check out *The Web Zone* on page 128 where we give you brief reviews of sites for locksmiths. There's more reason than ever to log on.

The new AutoSmart™ update is here! If your AutoSmart says 1996 or earlier on the cover, it's now time to update with the 1997-1998 edition. We have now switched to this numbering system because it better reflects the models we cover. Mike Hyde has been hard at work, and the new AutoSmart™ runs over 500 pages, packed with new features and information. Check it out on page 167.

Speaking of Mike, also take a look at page 176 where we give you information on his new book, *Japanese High-Security Auto Servicing*. This puppy really puts you in the driver's seat when it comes to Infiniti, Mazda and Lexus.

This month marks the ALOA convention in Reno, Nevada. The association has been hard at work to improve the show and to cut the costs for attending locksmiths. I urge each of you to make the show this year, and to give ALOA some feedback on how you think they're doing. This year also brings you a chance to vote in the presidential election which promises to be an exciting one. Be sure to turn out and exercise your vote if you are a member. If you're not a member of ALOA, come to the show anyway and see what is new from all corners of your industry.

Unfortunately, this month I have some bad news to report. Chris Christman of the Foley-Belsaw Institute passed away suddenly on Saturday, May 31st, 1997. Many of you knew Chris if you took the Belsaw course because he was the main contact between the school and the students.

In his role, Chris worked patiently for years to help educate people who had a strong desire to learn our trade. He was the kind of man who always had the interests of the industry in mind, and you could count on him for attention to detail and follow-through.

We know that Belsaw will go forward with their programs, but we also know that they will miss Chris very much.

Our deepest sympathy to his wife Diane and his children.

Would you like a shot at some great grab bag prizes from *The National Locksmith*? In an upcoming issue, we're running a Van Contest.

To enter, just send a photo or photos of your vehicle to:

*The National Locksmith*,  
Van Contest, Attn:  
Greg Mango,  
1533 Burgundy  
Parkway,  
Streamwood, IL  
60107.

The deadline  
of July 15 is  
coming up fast!

*Marc Goldberg*

**Marc Goldberg**  
Publisher



**Join our free E-mail list!**

Receive locksmith info by E-Mail  
Write us at: [NATLOCK@aol.com](mailto:NATLOCK@aol.com)

July 1997 • 7



# Mango's Message

**W**ith sirens blaring, emergency lights flashing, police squawking on bull horns, helicopters hovering overhead, and emergency medical service, fire fighters and the National Coast Guard out in force, the town of Grand Forks, North Dakota was being evacuated. 50,000 residents were being scattered like grains of sand to higher ground, as Grand Forks was deluged under 10 feet of water in the worst floods that part of the country has ever seen.

Ravaged first by record flooding and then by huge fires that spread unchecked in the downtown district, Grand Forks was under mandatory evacuation orders and a curfew until the water receded. The city's water supply was dangerously contaminated and the sewer system had collapsed after the Red River of the North spilled over its dikes and saturated everything in its path.

In North Dakota, the winter of '97 will long be remembered as the worst on record. In Fargo, ND over 100 inches of snow had fallen as wind chill temperatures plummeted to 80 degrees below zero. Brrrr. As if that wasn't enough, the Red River decided to spill over into Fargo as well.

Continuing its northward trek, the Red River also invaded the sister city of Grand Forks, ND — Grand Forks, Minnesota — causing almost the entire population of 3,500 residents to flee for dry land. Breckenridge, Minnesota was also hard hit.

Crossing the border into Canada, the Red River continued its march of destruction as it gushed into Winnipeg.



## A Natural Disaster



The province of Manitoba declared a state of emergency as more than 3,200 residents were ordered to flee their homes until further notice.

It is almost unfathomable to think that entire cities could be emptied by a force of nature. This was no ordinary disaster, however, it was a catastrophe.

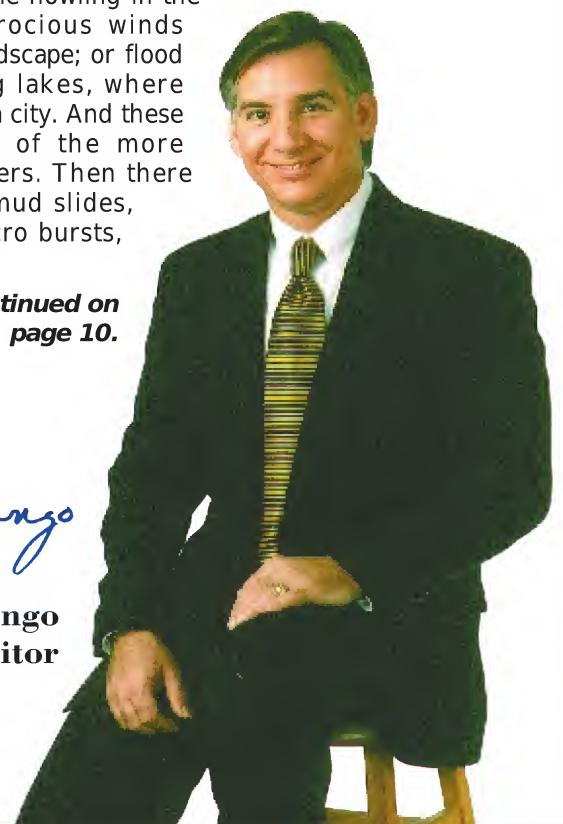
Probably the most amazing statistic of all is that there were no fatalities due to this flood within the U.S. borders, and only one reported in Canada. Of all the people affected by this flood, just one reported casualty is quite remarkable.

There are few things in life which are more terrifying or devastating than a natural disaster. We've all seen hair raising film clips of a tornado etching its way along the countryside, destroying everything in its path; an earthquake viciously shaking the earth, crumbling structures above; a volcano spewing streams of lava, resurfacing the landscape a molten black; a hurricane howling in the night, with ferocious winds slapping the landscape; or flood waters forming lakes, where once there was a city. And these are just some of the more common disasters. Then there are typhoons, mud slides, forest fires, micro bursts,

*Continued on  
page 10.*

*Greg Mango*

**Greg Mango  
Editor**





# Mango's Message

Continued from page 8

blizzards, drought, avalanches, tidal waves, monsoons, viruses and my wife's cooking. (Just kidding.)

Considering the variety of natural forces that can affect our lives, it's amazing the human species can survive at all. Yet, in spite of it all, we do.

What makes a natural disaster so menacing — besides the wake of destruction left in its path — is that there is usually little, if any, warning of the occurrence. And, there is usually little, if any, defense. In most instances, all one can do is hope and pray that their life and worldly possessions will be spared. Unfortunately, that's not always the case.

As the water receded in Grand Forks, ND and property damage could be assessed, more than 11,000 residents lost their homes. Among those less than fortunate individuals, a few were locksmiths who are not only rebuilding their lives and their businesses, but helping others to do the same.

A couple such locksmiths are Jim Bisson, owner of Keith's Lock & Key, and Lonny Burgau, owner of Pex Locksmith. Of the two, Burgau suffered the greatest loss. His house was declared unsalvageable, and is slated for demolition. There were few keepsakes the Burgau family was able to salvage. Their entire homestead and belongings was washed away in the rushing tide of the Red River. One of the few things that wasn't, is their memories.

As for Burgau's locksmith business, which was also flooded and suffered severe damage, much of the inventory will be lost. Lonny and his wife, Londa, are picking up the pieces, salvaging as much as possible while continuing to provide service where needed. It's proven to be a painful arduous task, but both are eager to put this experience behind them and are optimistic about the future.

Jim Bisson fared a little better than Burgau, but not by much. His house took on about seven feet of water and is a bit water logged, but habitable. Everything in the

basement was lost, including the furnace, but the rebuilding process has begun. It's anyone's guess how much time and monetary investment it will take before things are back to normal. Bisson did not have flood insurance, as most in this area didn't, including Burgau.

Unfortunately, rebuilding a home is not all Bisson has to look forward to. Bisson's locksmith

business also suffered flood damage and the laborious job of sifting through the wreckage, cleaning and saving what he can will take some time. Meanwhile Bisson's store is open for business and is continuing to provide service to those in need. Life goes on.

I couldn't imagine the heartache and complete sense of helplessness and loss these individuals and their families must be experiencing. It is difficult to imagine what it would feel like to wake up one day and find everything you have worked and lived for has vanished. What would be even more crushing is to know that there is nothing humanly possible that any individual could have done to change or combat the situation. Man is at the mercy of many things in life, natural disasters are some of the most powerful.

Jim Bisson and Lonny Burgau are just a couple of the locksmiths in North Dakota and Minnesota that suffered losses due to the rage of the Red River. To lend a helping hand to those fellow locksmiths in need, a disaster relief fund has been established to sustain families experiencing a crises of epic proportion. Your contributions, no matter how big or small, will greatly be appreciated, and I'm sure such acts of kindness will never be forgotten. One of the greatest pleasures in life is to help those truly in need. There are few things more satisfying. If you wish to give, send your donation to:

**Locksmith Flood Relief Fund**  
c/o Western Bank  
7035 Tenth Street North  
Oakdale, MN 55128

All donations are tax deductible and given on a volunteer basis. That's the beauty. You do not have to give unless you so desire. To convey the point, I'll share with you an ad campaign message I recently saw about giving. It read:

*In America, you are not required to offer food to the hungry. Or shelter to the homeless. There is no ordinance forcing you to visit the lonely, or comfort the infirm. Nowhere in the Constitution does it say you have to provide clothing for the poor. In fact, one of the nicest things about living here in America is that you really don't have to do anything for anybody!*

Before you choose not to give, imagine what it would feel like if this disaster happened to you! What would you do? Imagine how devastated you would be if your house and worldly possessions disappeared tomorrow! Now imagine how gratifying it would be to know that somewhere in the world someone cared enough to help.

Think about it. **TNL**





J u l y 1 9 9 7

# Letters

*The National Locksmith* is interested in your view. We do reserve the right to edit for clarity and length.

## ALOA Presidential Candidate

Every two years, the ALOA presidential gavel is handed over to a new leader. Meet an individual who is up to the challenge. The ALOA Nominating Committee is proud to announce its 1997-99 choice for president: Dallas Brooks.

Dallas came from a locksmithing family and went into the business himself after military service and college. He worked for another locksmith for 10 years before opening American Lock & Key in Auburn, AL. That same year, he joined ALOA.

"I have to give a lot of credit to ALOA over the years for assisting me in so many ways. The education that I and my employees received and the personal contact with manufacturers' distributors and other locksmiths at the ALOA conventions were important to the development of my business," Dallas says.

Dallas helped charter the Heart of Dixie Chapter and served as chairman. He was invited to be a member-at-large on the ALOA board in 1992. He was then elected to a three-year director position in 1993, and to his current position, Southeast vice president, in 1994.

As ALOA president, Dallas will work on many issues, including the desirability of allowing members to vote by proxy when they are unable to attend the annual membership meeting. The major components of his platform are:

- Long range financial stability cutting cost of operations while increasing benefits and services to membership;
- Better ways to network with manufacturers and distributors to establish a true joint effort for the industry - especially in the areas of purchasing, product knowledge and certification;
- Improved member communication; and
- Increasing ALOA's efforts in protecting our trade from attempts to pass legislation excluding locksmiths from installing electronic access control devices.

Dallas plans to seek the assistance of all ALOA members to meet his goals.

*The Associated Locksmiths of America, Inc.*

## Running From The Floor

My name is James M. Watt, and I am seeking the office of President of ALOA at this year's ALOA Convention in Reno.

Many are asking where is ALOA going? I have read the posted comments on the Internet and talked



to hundreds of locksmiths around the country concerning ALOA and where it seems to be headed. The general consensus from the locksmith is that, at best, ALOA doesn't seem to be going anywhere, and seems to offer very little as an incentive for belonging.

The ALOA Board elected Nominating Committee has hand picked the people whom they believe will continue the status quo. I think it is time to make changes and start ALOA moving again. I want to offer the following as a plan of action for ALOA for the next five years which will ultimately benefit you as a locksmith and security specialist, and give value to the current and future members.

These are the operational goals which will define ALOA's direction for the next two years and hopefully into the future. I will ask the ALOA members to subscribe to the plan and, as ALOA's President, hold me accountable for setting in motion the action to achieve these goals.

My future plans for ALOA are

**The National Locksmith**  
**1533 Burgundy Parkway**  
**Streamwood, IL 60107**  
**Attn: Editor**



**Continued from page 12**

goal oriented. They are proactive and certainly achievable. With my ideas and through cooperation with all facets of the industry, ALOA can and will make the future of the locksmith industry a better place to be.

I look forward to seeing you all in Reno. With your support we can make ALOA great again.

For a copy of my 5 year plan for ALOA, please contact me at:

Telephone: (406) 7219797

Fax: (406) 5497067

E-mail: [jwattcml@artnrays.com](mailto:jwattcml@artnrays.com)

*James M Watt, CML, CPS  
ALOA Northwest Vice President*

## A Great Teacher And Contributor

Thanks for having a place in your publication for beginners. I've been a full time locksmith since August of '94. Three years of on the job training (OJT) has taught me a lot. I also learn from all of the locksmiths around me, but Beginners Corner and Technitips are great places to learn from others. I think Jim Langston who writes Beginners Corner is a great teacher to learn from and hope he is around a long time. Keep up the good work and please add me to your e-mail list. Thank you.

*Jon Millsap  
Texas*

## CAUTION To New And Old Locksmiths

Use extreme care when drilling open older safes. You do not want the discomfort and the expense if you detonate a tear gas equipped safe like the one shown.

Tear gas installations were popular in the early 60's and 70's. A lot of vintage safes in the field could still be equipped with these vials, and no external clues are visible to give any indication of these installations.

*William Borner  
Pennsylvania*



## Are You A Locksmith?

My wife sometimes goes out with me on service calls and one way to really make her boil is to ask, "Are

You A Locksmith?" "No, I just wear this shirt with LOCKSMITH written all over it because I'm trying to start a new fashion statement" she says under her breath. She just smiles and fixes whatever needs fixing and leaves them with that look on their face.

People are prejudiced about a lot of strange things. When my Mom sold insurance, many of the men couldn't bring themselves to listen to a woman about financial matters, but if I went in saying the same thing, they listened. Weird.

*Drew Dailey  
E-mail*

## Only A Man Will Do

I trained a female locksmith 15 years ago. She learned quickly and was very good with customers. The only problem I had was sending her out on service calls. The men didn't mind her coming, but the females wanted a man to do the job.

*ABWAY  
E-Mail*

## Is A Female Capable?

In regards to the females who only want a man to do the job. I am a 31 year old female locksmith. I am married and a mother of three beautiful children, and only once in the 13 years that I have been locksmithing have I been asked if I was capable.

I have never had a woman client request a man to do the job instead of me. In fact many request me, due to my personality and great sense of humor while servicing these customers with professionalism. The response I usually receive is "I have never seen a female locksmith before!"

It is very important for me to be a perfectionist on every service call I do. Whether you are male or female, does not matter in this business. What matters in this business is getting the job done, and done well. I have to say however, when the phone calls come in asking for the locksmith, and I reply I can help, there is a little hesitation. After I answer the questions and help fix their problem, 99% of the time they ask for me thereafter.

*Fran Henson  
E-mail*

## She Can Do It

I have been a locksmith for over 25 years and my wife has been one for over 20. We have just hired someone with no experience and am

in the process of training HER. Some men have a hard time accepting a woman in a traditional man's job, but they get over it. Men would come into our shop and look right past the woman at the counter and talk to me at the workbench like she wasn't there. I cured that by telling them that I wasn't familiar with their problem, but Diana knew all about it. It took awhile, but I think they even like the idea of a woman doing this work.

Our new woman employee works in the shop and helps with alarm installations. She has had several very good comments from other women about her new job.

We just incorporated the first of the year and my wife is the President and 51% owner. We are now minority owned and operated. Another big advantage is that when sales people call and ask for the owner I can put them on hold and yell "Diana, it's a call for the owner!"

*Lenny Wollitz  
Minnesota*

## Viper Eats Locksmith

I was at the marine terminal making keys to a BMW when one of the foremen came over and asked me if I could open a Dodge Viper. "SURE!" I said. I didn't tell him that I'd never even seen one close up, let alone open one.

When I got to the car which was on the other end of the lot, I noticed that it didn't have any outside door locks... at all! I reached for my Tech Train manual and it said that since the car does not have outside door locks, they recommend picking the trunk lock (standard Chrysler wafer lock) to gain access to the car via the rear hatch.

The lock picked in about thirty seconds and with a big grin, I opened the hatch only to find a small (much less than a foot high) pass-through opening leading into the passenger compartment. So close, yet so far away were the keys, dangling from the ignition. Sure I could have reached through with a car opening tool or a stiff piece of wire and snatched the keys from the steering column, but Noooooo. I decided to just squeeze my fat behind into the car and save a trip back to the van.

I pulled the keys out of the dash and pressed the button on the keyless remote entry (that's how you normally get into this car). Nothing



**Continued from page 14**

happened. Hmm. I thought maybe the battery was dead. As I pondered my next move, I looked to the right and saw a lever which read something to the effect of "In case of emergency open here." I pulled the lever and the door popped open. (For future reference, you can reach the lever from outside the car.)

This is where the fun began. After opening the door I started to back out of the pass-through. When they called it a pass-through, they apparently weren't talking about people.

Luckily nobody was around to see it, but it must have looked hysterical. My legs were flapping around in the air and I couldn't get my hands into a position where I could get enough leverage to pull myself free.

After a bit of finagling I managed to work myself loose, quickly glancing around to see if anyone had seen. No one did.

Guess I should start hitting the ol' exercise bike a little more often, huh?

*Bob De Weese, CPL  
Maryland*

## Encouraging Chrysler To Give Codes

Recently I wrote a letter to Chrysler's Customer Assistance addressing the locksmiths inability to get key codes for their as well as our customers. In my letter I addressed the extra cost our customers had to pay to get lost keys originated because of that inability.

I was contacted within 10 days by Chrysler's representative Nichole Thorton. Ms. Thorton addressed their concerns of consumer safety as being the reason they do not give out key codes to anyone other than a Chrysler dealer.

I explained how other roadside programs protected their customers by having only locksmiths registered with their companies able to get the codes from them. Ms. Thorton then explained that my letter was to be turned over to the team who handles this decision and that it would be considered, after all it is in their best interest to do what they can for their customers. She also went on to explain that my letter addressing this problem was one of only a few letters. She suggested that locksmiths start writing letters to customer service in order to sway those powers that be.

That is my purpose in writing this letter. To get as many locksmiths as possible to write and help institute the change. The address follows:

Chrysler Customer Center  
P.O. 21-8004  
Auburn Hills, MI 48321-8004

If you are interested in being involved in encouraging Chrysler to release codes, please write them. Right now they only have roadside assistance through tow truck companies.

*Mary Jenkins  
Missouri*

## Telephone Machine Gripes

How many times have you called a company for information and ended up talking with, or punching numbers into a machine?

I realize that it is less expensive to have a machine answer the telephone and route the calls. Sometimes you can get the needed information from the machine, but there are times that a person is needed to answer a specific question.

During the past month we tried to get specific information on interior parts of a lateral fire file that an "in house" maintenance man had repaired. Now one drawer would not close. Our supplier tried to get the information and after talking to the machine many times, told us that they would not try again.

I tried the machine route, and after the machine told me twice that the information would be sent, and not receiving anything from the company, I made a call to the Vice President. Again a machine told me "He was out of town," but I did get a return call and he advised me he would send the needed information, which he did.

I have since had to call again, and after the machine gave me the run-around, I talked to a human and was advised that they did not actually manufacture the product, but would try to get me the information. It has been over a week, and still waiting.

How can a company expect to stay in business if they rely totally on telephone machines that do not do what they say they will. I have sat in many offices when the phone would ring, and the person would say "Let it ring, I do not want to talk with them, the machine will take the message."

*George A. Sharpley, CML  
Pennsylvania*

## A Refreshing New Approach

In regards to the letter by Mike Crowder of ASSA, printed in the May '97 issue, I just wanted to get in touch with Mr. Crowder to let him know I would like to meet with him and whoever else is interested in his proposal on market share. I found it a refreshing change to hear from someone in the manufacturing sector who wants to take a more proactive role in helping the locksmith industry, instead of taking our market out from under us. Please pass on my name. I look forward to hearing from him.

Thanks, and keep up the good work on the magazine.

*Steve Coleopy  
Alford Lock and Safe Ltd.  
Vancouver, B.C.*

## Service the Reinhardt Way

With all the complaints about wholesalers/distributors, and the lack of service some provide, or the fact that many are selling direct to "our" customers and then selling to locksmiths at prices higher than Home Depot, I would like to acknowledge one company who stands out from the crowd.

I have been buying from E.L. Reinhardt in the Minneapolis, St. Paul MN area for over 10 years. Back when coming up with a \$50.00 order was difficult, I was treated as nicely then as I am now when the orders can come to \$5,000.00. I am notoriously bad for not knowing or looking up part numbers, but when I apologize, I get responses like "That's O.K., that's our job."

On one occasion, I needed a part the very next day. Reinhardt didn't have it in stock, but one of their employees went across town on his lunch hour to get it from another source, just so I could have it in time. Now that's service!

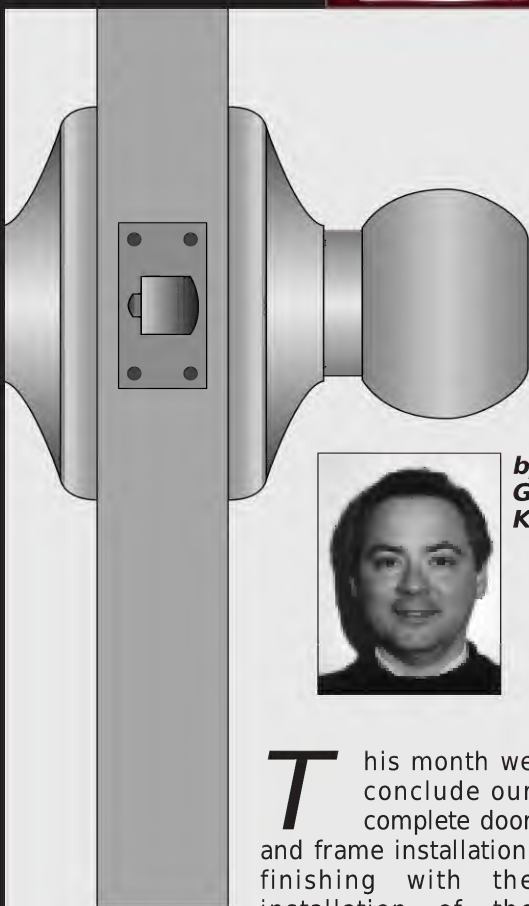
I don't bother to shop around for prices at all now. For one, it's not worth the effort due to the discount I presently get, and secondly, I don't get this kind of service from most other places.

They don't know I'm writing this letter, but it's my way of publicly saying "Thank You." I owe a great deal of my business success to E.L. Reinhardt. Thanks.

*Dave Franchuk, CPL, CPS  
North Dakota*







# Opening New Doors *Part 3*



by  
**Giles  
Kalvelage**

**T**his month we conclude our complete door and frame installation, finishing with the installation of the threshold and door hardware.

The threshold used was an aluminum 36" x 1/2" x 5" saddle threshold. ADA requires that a threshold be a maximum height of 1/2". After cleaning the work surface area, Gary lays down the uncut threshold to determine the measurements of the required modifications (see Photograph 1).



**2. Threshold is carefully marked and cut to size.**

The length and required twists and turns are marked on the threshold



and then cut using a Sawzall (see Photograph 2).

After the threshold is cut, it is then set into position and checked for any final adjustments (see Photograph 3). As expected, it was evident that the new door and



**1. The uncut threshold is positioned to be measured.**



**3. Threshold is positioned for any final cuts.**

*Continued on page 20*



*Continued from page 18*



**4. Heating the tile with a torch loosens the adhesive, making it easy to cut and remove.**

threshold extended over existing interior floor tile. To make the threshold seat firmly and reduce floor maintenance headaches later, it was decided to remove the tile which would be under the threshold.

**T**he floor tile was marked and then a torch was used to heat and loosen the tile (see Photograph

4). While the tile was still hot, it was cut with a carpet knife. The tile cut so smoothly that it was unnecessary to cut it with a straight edge to get a perfect cut. The heat from the torch softened the tile for cutting and the adhesive underneath for tile removal.

The threshold was again put in place to mark where the mounting screws would be placed (see Photograph 5). Holes were then drilled at the markings where the anchors would be placed (see Photograph 6). Remember when I commented about removing old mounting screws instead of cutting them flush, otherwise they'll come back to haunt you? Well, one old screw did. After a lot of persistent drilling, the old screw was finally removed to make way for the new anchor and mounting screw.

With the holes drilled, plastic anchors installed, and another debris



**5. Marking the floor for threshold mounting screws.**



**7. Caulk is laid where the threshold meets the floor.**



**6. Drilling the threshold mounting holes.**



**8. The threshold is permanently secured.**

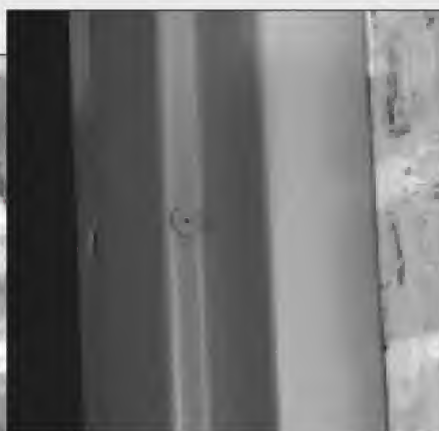
*Continued on page 22*



Continued from page 20



**9. The installed silencer will effect the placement of the deadbolt strike hole.**



mostly in industrial applications, fit into a rectangular cut-out and then are tightened to hold securely (see *Photograph 12*). With the lock installed, the cover plate is positioned over the bolt assembly which will make for a clean, neat installation (see *Photograph 13*).

There's still no easy way to cut a square deadbolt strike hole into a steel frame, so Ted cuts two holes in the frame with hole saws and then widens them with his Sawzall (see *Photograph 14*). Finishing touches are

always required, and Ted will make a perfect rectangular strike hole with the use of his hand held rasp.

Next, a new door closer was installed. Because of the construction of the building, the only practical mounting position was a parallel arm. The



**11. A hole saw is used for the initial Unit lock cuts and a Sawzall is used to finish the job.**

While Gary was working on the threshold, Ted was installing the Unit deadbolt which was removed from the old door. First, the door silencers were installed into the frame (see *Photograph 9*). The silencers reduce the crash sound of the door as it

closes. If the silencers were not in place before the frame was marked to accept the throw of the deadbolt, the deadbolt strike hole would be off by about 1/8".

The door was then marked for the Unit lock installation using the original lock as a guide (see *Photograph 10*). Using a combination of hole saws and a Sawzall, a rectangular hole for the Unit lock was cut in the steel door (see *Photograph 11*). These heavy duty locks found



door and header frame was measured, marked and drilled for mounting screws (see *Photograph 15*). After the mounting holes were drilled and tapped, the closer was installed and adjusted (see *Photograph 16*). The finished product can be seen in *Photograph 17*.

Above the frame at the header, on both the inside and outside, there was about a 3/4 inch gap. If this gap is somewhat small, it can be simply

**10. Measuring for the Unit lock deadbolt.**

cleanup, it was time to caulk the ground where the threshold would be placed (see *Photograph 7*). This, of course, is important to prevent the rains from oozing into the building from the outside. The threshold was then positioned and permanently mounted into place (see *Photograph 8*). A perfect fit.

Continued on page 24



*Continued from page 22*



**12.** The rectangular hole for the deadbolt.



**13.** The Unit lock deadbolt set in place and secured to the door.

caulked for a seal. If the gap is somewhat larger, as is the case here, steel molding should be applied.

**A** strip of steel is cut to size and four or five mounting holes are then drilled into the molding.



**14.** Two hole saw cuts start the process of a rectangular strike hole.

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**15. Measuring and drilling for the closer.**

The frame is marked, drilled, and the molding is pop riveted into place (see *Photograph 18*). Remember, if this is necessary on one side, it will probably be necessary on both the inside and outside. A bit of touch-up paint will match the molding with the door (see *Photograph 19*).



To close the gap at the bottom of the door a nylon brush sweep was installed on the door. After cutting the sweep to size, it is installed using self drilling screws (see *Photograph 20*). While a nylon brush sweep was chosen for this particular installation, other sweep styles are available, and selection is oftentimes just a matter of choice.

A cylindrical passage leverset and strike plate was then installed (see *Photograph 21*). Technically, a leverset may not meet Life Safety Code requirements because a deadbolt lock has already been installed. With both a deadbolt and leverset, a person might have to make two motions to open the door, one to turn the deadbolt, the second to release the leverset latch. In fact, three motions would be required if the person tried the leverset first, then



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**16. Installing the closer.**



**17. Finished closer installation.**



**18. Marking the frame for drilling and pop riveting the molding in place.**

finding the bolt secured. The jurisdiction having local authority (usually the fire department) does have the authority to waive this Life Safety Code requirement, and oftentimes does if it is felt that building occupancy will be low and those in the building will be familiar with the operating

procedures of the door. If the code is not waived, it is easy enough to remove the leverset and install a push plate/ pull handle. The push plate/ pull handle will meet handicapped regulations, satisfy the one motion to escape code, and will cover all holes left by the removal of the leverset. The disadvantage is that you will lose the positive latching of the leverset and a potential for a second key locking device.

**T**he old alarm contacts were then reconnected to the frame and the door (see Photograph 22). It is wise to note how the contacts were initially removed from the old door. While most alarm contacts are normally closed when together, open when apart, the contacts use magnets to open and close their reed switches. Since like poles of a magnet repel and unlike poles attract, there is potential to reconnect the contacts improperly, possibly causing false alarms. In our case, the alarm control panel was next to the door that was replaced, and by viewing the status indicators on the control panel, it was easy to determine the correct placement of the contacts.

The final step in this installation was the application of a bead of caulk applied around the frame where it contacted the ground and walls, both inside and outside to keep out the weather and moisture (see Photograph 23).

The final product can be seen in Photograph 24. What a beautiful job.



**19. Touch up paint (primer) goes a long way in dressing up the final installation.**





**20. Installing the sweep with self drilling screws.**

The door not only looks much better, it operates like a charm. This should have been done a long time ago.

**T**his series has been shared with the readership for several reasons. In my travels, I've often been called upon to rekey locks on doors that have been in the condition of the original door and frame which introduced this series of

articles. Knowing that the door and frame was unsatisfactory, I would suggest that a professional door hanger be contracted to replace or repair the door. I always wanted to see them do that.

Secondly, it is good to view the security of the construction of these doors and frames. This series of



**21. Installing the lockset in a pre-prepped hole and the ANSI strike.**



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**22. Alarm contacts are re-installed.**

articles has shown the strong points, as well as the weak points, of steel door and frame construction.

Lastly, while door hanging is not necessarily a locksmith duty, there's no reason that it cannot be included as a peripheral service to locksmithing if so desired. Because it is physically challenging, it's safer as a two person operation, but I've heard of one person hanging doors. Like anything else, practice makes perfect. Ted and Gary have had a lot of practice hanging doors. If hanging doors is to be a new service added to your shop's repertoire, get set up right. Get the right tools and supplies, be safe, and hang in there.

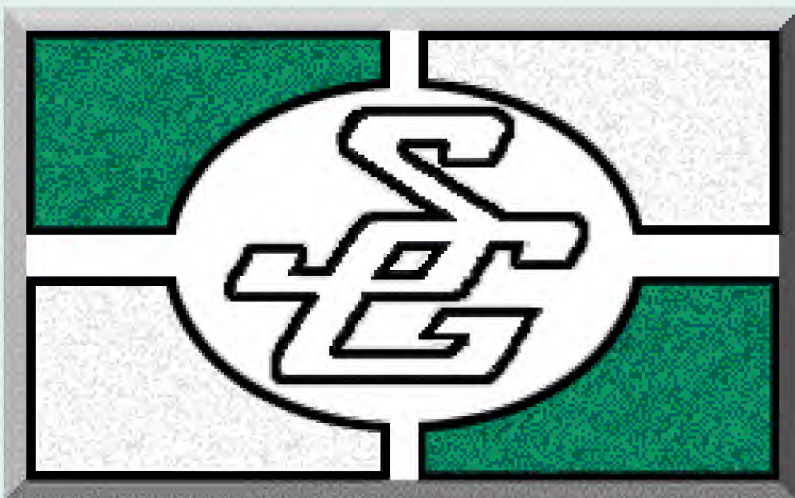


**23. Caulk was applied to all surfaces where the frame met the wall and floor.**

TNL



**24. The completed installation.**



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## Trunk



**1** The trunk lock cylinder sits to the right of the license plate frame.



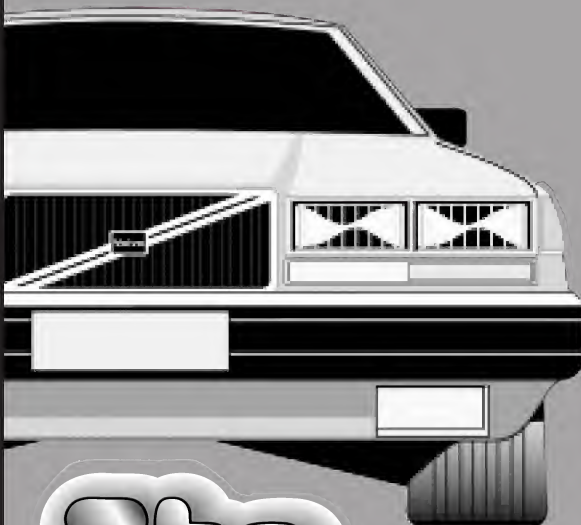
**2** To service the trunk lock cylinder it will be necessary to pull back a section of the inside cloth-like trim. There are plastic push-in style clips that must be removed. They remove easily.



**3** The trunk lock cylinder is held in by a metal heavy duty retention clip. Before you can slide off the clip you must remove the single Torx screw that holds it in place.



**4** This is the trunk lock cylinder retention clip.



by  
Michael Hyde

## Part 2

# The 1997 Volvo 960

Last month we covered the ignition and door locks. This month we continue with the trunk and glove box lock.





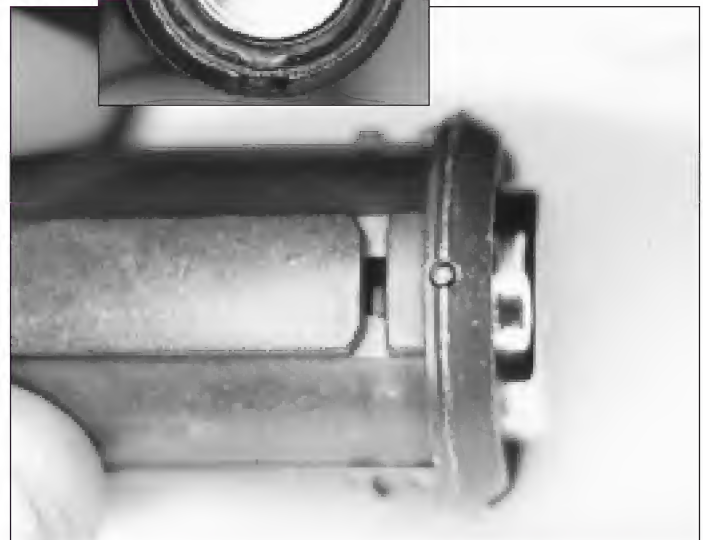
**5** The trunk lock cylinder removed. Just like the door lock, this is no ordinary trunk lock.



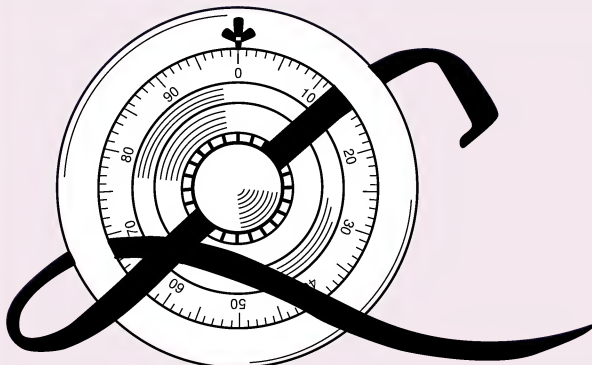
**6** The cylinder tailpiece is held on with a retaining ring.



**7** Gently unsnap the black plastic trim ring on the face of the lock cylinder. There are no replacements available. A new lock cylinder costs over \$100, so take your time.



**8** There are two retaining rings that hold the cylinder plug into the cylinder housing. To remove the first ring, locate the very small roll pins, one on each side, and remove them. I used a 1/16th drill bit and drilled next to each pin and it removed easily. (Same as with the door lock.)



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9

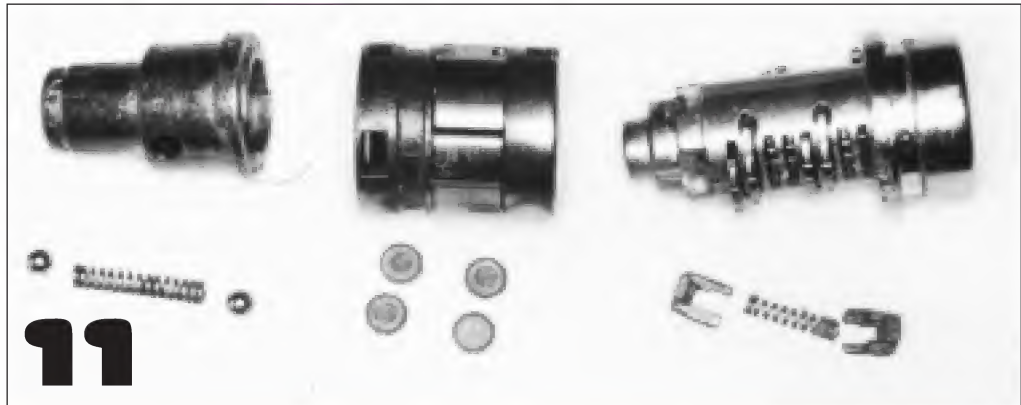
*The first retention and associated roll pins removed.*



10

*The second retention ring being removed. I was able to start wedging the ring out through the drain hole.*

*The trunk lock cylinder plug also utilizes a secondary sleeve. This sleeve has four Hockey Puck looking devices that sit in the rear slots of the sleeve. The cylinder plug has two spring loaded detents that actually rest in a slot on the rear of the cylinder plug. At the end of the plug is the tailpiece receiver cap that has a hole in it for a spring and two opposing detent ball bearings.*



11



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**12**

*The trunk lock cylinder disassembled. The trunk lock cylinder contains all eight tumblers for a complete master key.*



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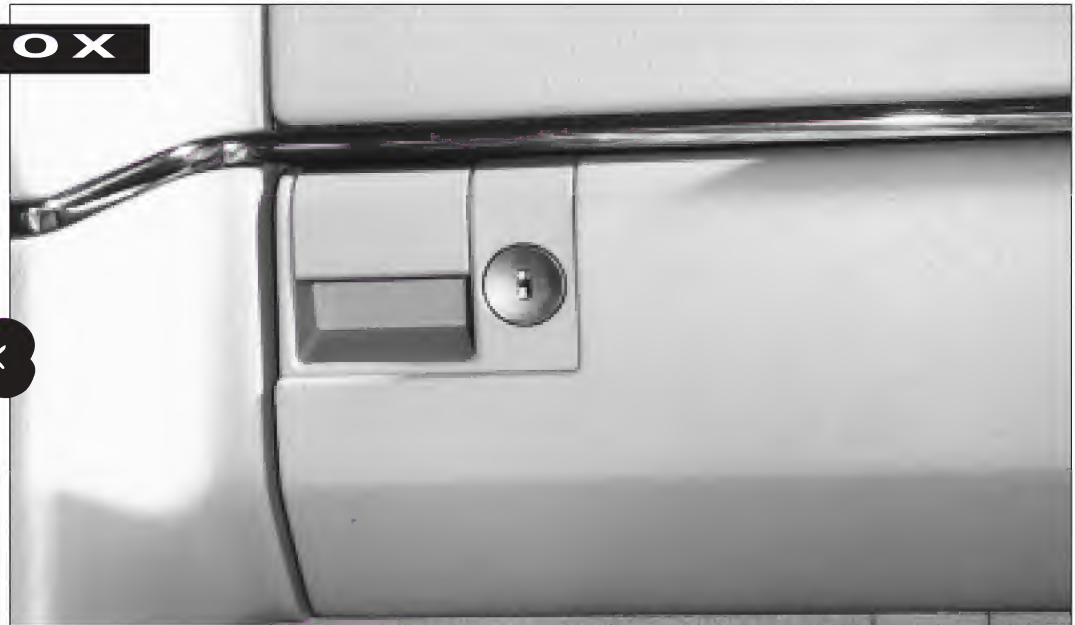




## GLOVE BOX

**13**

*A view of the glove box lock.*



**14**

*To remove the glove box lock it will be necessary to first remove the back plate to gain access to the rear of the lock assembly. The cover unsnaps.*



**15**

*Remove the three screws that hold the lock assembly to the glove box door. The linkage rod will slide off for removal of the lock assembly.*



**16**

*The glove box lock assembly removed from the car.*



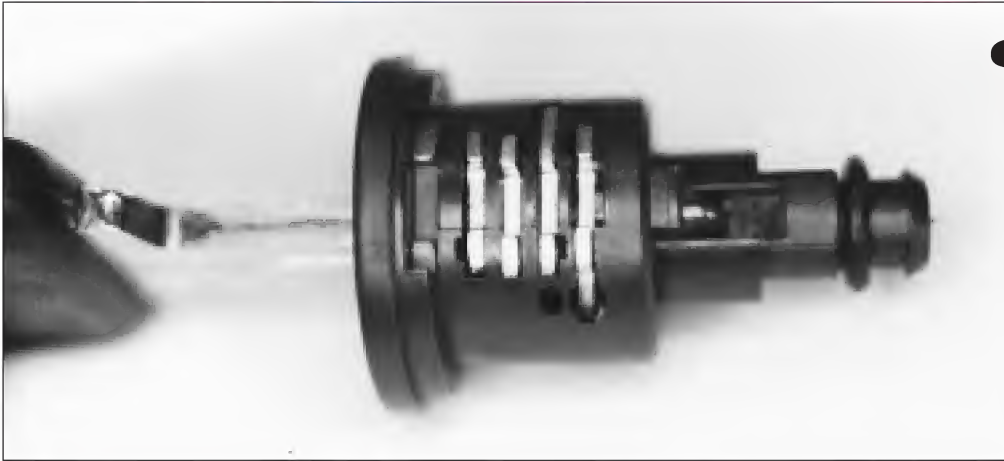
**17**

*To remove the cylinder plug, you will need to gently shim the four plastic tabs that retain the end of the plug.*





Continued from page 34

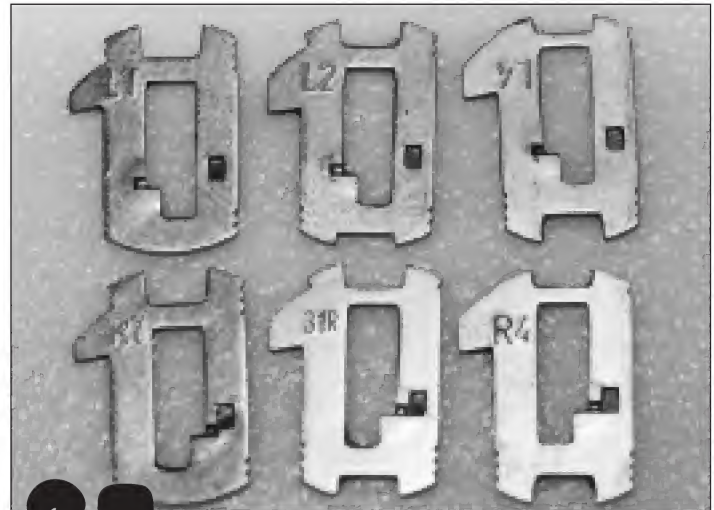


**18** The cylinder plug will now slide out. The glove box lock contains four tumblers in positions 2 left, 2 right, 3 left & 3 right.

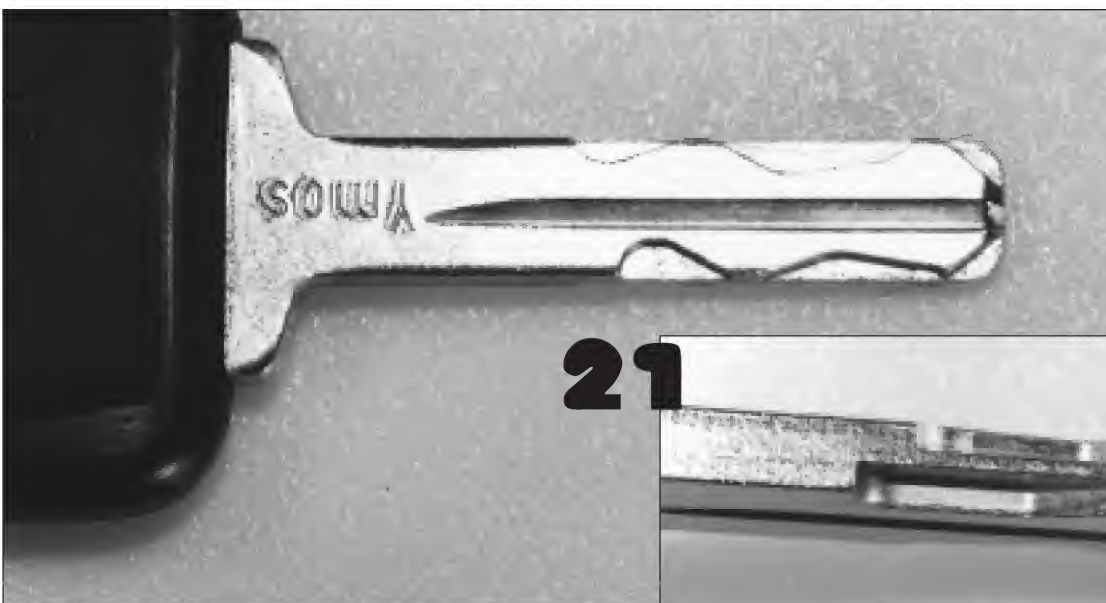
## Keys and Keying Kits



**19** The kit for re-keying these locks and the earlier version Volvo 4-Track locks is ASP Part #A-32-102, the kit contains a large quantity of tumblers.



**20** The tumblers used for this car are all the same in all the locks. The lock cylinders, tumblers, and keys are produced by a company called "YMOS," they are located in the United Kingdom. YMOS makes locks for several of the other European car companies as well.



Notice that the cuts on the keys are offset between the left track and the right track.

**21**



Continued on page 38





Continued from page 36

High Security Code Series: 1V/2V/3V/4V/5V 001-12295  
MOST 1993 & up Models / Locks Made By YMOS.

Key Blank:

ILCO: S66NN-P

SILCA: NE66P

M.A.C.S: 3

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\*Use Space & Depth Keys

Measured From Tip.

Cut to cut: .440 mm, with a  
Flat of .100mm

1960	1520	1080	640
1	2	3	4
1760	1320	880	440

OFFSET  
SPACING

Depths:

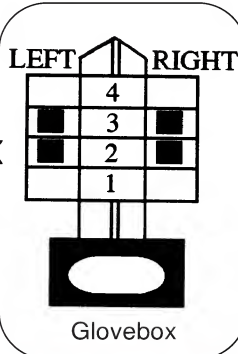
1 = .735mm

2 = .670mm

3 = .605mm

4 = .540mm

Dimensions for this key are shown in hundredth of millimeters, (1mm = 100 millimeters)



#### MAKING FIRST KEY:

**Method #1.** Remove trunk lock cylinder and disassemble. The tumblers have a number stamped on them. Make a key to the trunk cylinder and it will work all the other locks. There are four depths.

The positions of the tumblers in comparison to left and right are staggered on the key.

**Method #2.** Remove door lock cylinder and disassemble. The tumblers have a number stamped on them.

Make a key to the door cylinder and it will work all the other locks. There are four depths.

**NOTE:** Make sure you have the newer set of Space & Depth keys for this car, the older sets sold by Lynn Hawkins will not work because of different spacing and depths. The newer sets can be purchased from National Auto Lock Service @ 1-800-954-5454.

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# Weathering External Gate Problems With Detex



by  
**Jake Jakubowski**

**W**hat do you say to a customer that asks you how much you will charge to put an alarmed panic/exit device on an exterior gate? You know, like outside where it rains, snows and gets real hot and real cold, and there's fog, condensation, hydrocarbons, vandals and gate crashers! No problem, right?

It took me four phone calls to find out what I needed, a Detex Wetlock ECL-8010W (see Photograph 1).

For those of you, like myself, who had never heard of a Detex Wetlock ECL-8010W, it is - according to company literature - the first alarmed exit control lock designed specifically

for outdoor applications. As the name implies, the ECL-8010W is a derivative of Detex's popular ECL-8010. However, the ECL-8010W is highly weather resistant and will perform well in environmentally demanding applications. This made the ECL-8010W an ideal solution for my needs.

The ECL-8010W, features a high decibel solid-state directional alarm, which can perform adequately as a battery-powered stand alone exit control device where there is no A/C power. It can also be easily interfaced with other Detex security hardware.

The Detex ECL-8010W just might be the perfect solution for controlling the unauthorized use of exterior chain link and wire mesh gates. Such gates are found at garden centers, building supply centers, lumber yards, public swimming pools and other facilities where exposed emergency exits are code required. The ECL-8010W is preferred where padlocks and other ancillary locking devices are not allowed because they violate Life Safety Codes or ADA mandates.

Before installation, I had my customer's maintenance department weld a mounting plate to the chain link gate. The plate extended the full width of the gate. When you mount an ECL-8010W on a mesh or chain link type gate, you must have a solid (nearly non-flexible) base to attach it to.

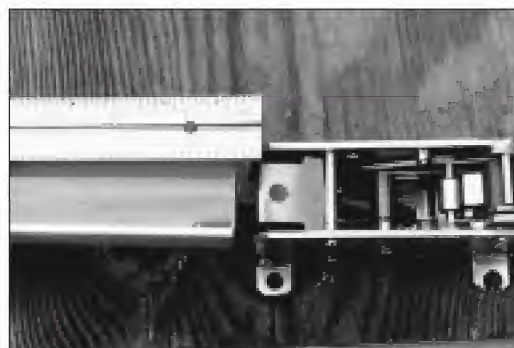
Originally the maintenance man had welded a 16 gauge plate to the inside face of the gate. This proved too unstable (I found that out after having the ECL-8010W nearly mounted) and I had them weld a 10 gauge (about 1/8" thick) plate both the inside and the outside of the gate. I would have preferred 1/4" stock for the plates, but 10 gauge is all they had.

The initial installation is made with the template supplied and drilling four mounting holes to mount the bolt end back plate. Since this installation did not need outside key control, there are no holes drilled for a rim cylinder mounting.

Next I deviated slightly from the instructions supplied by Detex and began assembling the bolt mechanism assembly to the bar assembly (see Photograph 2). Note in the photograph that the end of the bar is exactly 3/8" from the end of the bolt mechanism's pivot plate. This measurement is critical to the proper operation of the assembled unit.



**1** The Detex ECL-8010W is an alarmed exit control lock designed specifically for outdoor applications.



**2** The bolt mechanism assembly secured to the bar assembly.

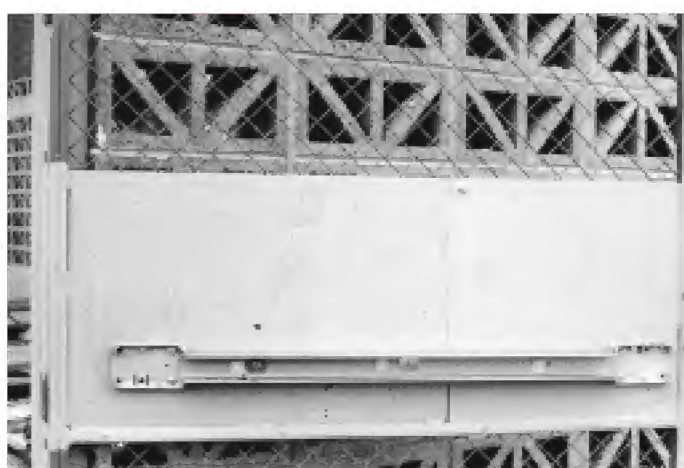


**3** The head of the "T" bolt needed to attach the bolt's pivot plate to the bar.



**4** Slide the "T" bolt into the rail then tighten the nut with the wrench provided.

**5** The bolt end back plate, the shield assembly and the pivot end assembly backplate on the gate.



Photograph 3, shows the head of the "T" bolt needed to attach the bolt's pivot plate to the bar.

As seen in Photograph 4, you slide the "T" bolt into the rail on the underside of the bar mechanism. Then tighten the nut with the wrench provided in the ECL-8010W's installation package. The ECL-

8010W that I'm using here was factory cut for a 36" door. If you needed to make it narrower, you would cut the bar 9-1/4" less then the distance between the door stops. The cut should be made on the pivot end of the bar and the edges filed smooth, especially where the "T" nut slides into the bar.

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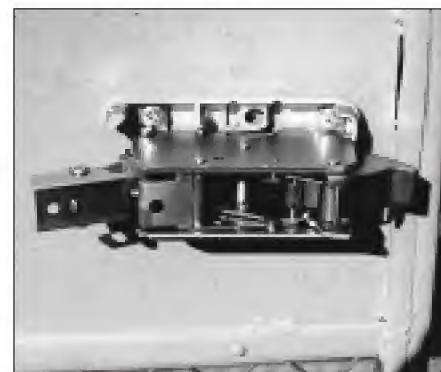
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**6.** The wiring harness in place.



**7.** The keeper or latch bolted to the frame.

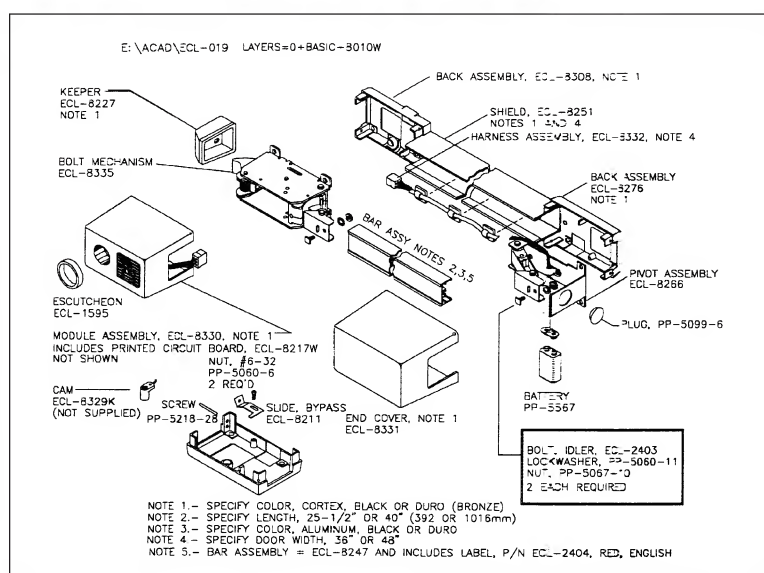


**8.** The bolt mechanism secured to the back plate assembly.



**9.** The completed installation of the Detex ECL-8010W.

**Illustrated parts break-down.**



The next thing that I did was to place the wire clamps in the shield assembly and mount the bolt end back plate, the shield assembly and the pivot end assembly backplate on the gate (see Photograph 5). Here again, a slight deviation from Detex's directions since I wanted to be sure that everything was level and true with no binds on the backplates or shield assembly.

Photograph 6 shows the wiring harness in place.

Photograph 7, shows the keeper or latch bolted to the frame. To give the latch a firm and solid mounting, I used my Curtis Gripsert tool to install 1/4" X 20 inserts and used quarter-twenties to attack the keeper.

Photograph 8, shows the bolt mechanism secured to the back plate assembly which is secured to the mounting plate on the gate.

I used Grommet nuts for mounting since there was a double thickness of metal (two 10 gauge pieces) on the gate. For the final bolting of the unit I used Fender washers to back up the Grommet nuts. Then I cut off the protruding bolt portion of the 1/4" bolt and then braded the end of the bolt with a hammer. This is to prevent tampering with the mounting hardware or loosening due to vibration.

Once I had assured myself that everything was functioning normally, I buttoning up the unit as you can see in Photograph 9.

My first installation was actually two installations in one because I first mounted the ECL-8010W on the 16 gauge backplate and the darn thing didn't work at all. After about two hours of fiddling, fooling and fixing, I came to the conclusion that I had run into the panic bar from Hades. That is, until I got to the cause of all my problems. The back plate was too thin. After installing the 10 gauge plates, I was able to mount the ECL-8010W fairly easily and without any major problems.

If you already install panic or exit hardware, you can profit from adding Detex's ECL-8010W to your repertoire. If you don't install panic or exit hardware, you're cheating yourself out of some serious shekels.

For more information on Detex's ECL-8010W or other Detex products call: 1-800-729-3839. **TNL**

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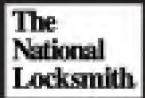
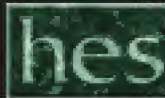


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# BEGINNER'S CORNER

## Fort Locks



by  
**Jim  
Langston**

**T**ired of carrying around a truck load of cam locks and supplies, and still not having the correct lock all the time? Fort Lock just might have the answer for you. This month I will discuss Fort Lock's Compatible Locking System and their Multi-Function line. I will also discuss in detail one of their newest locks, the Fort Multi-Function Wood/Drawer Door Lock.

Fort's new Compatible Locking System is an innovative new design that will retrofit most existing lock applications in the field. It is made up of two distinct parts; the Universal

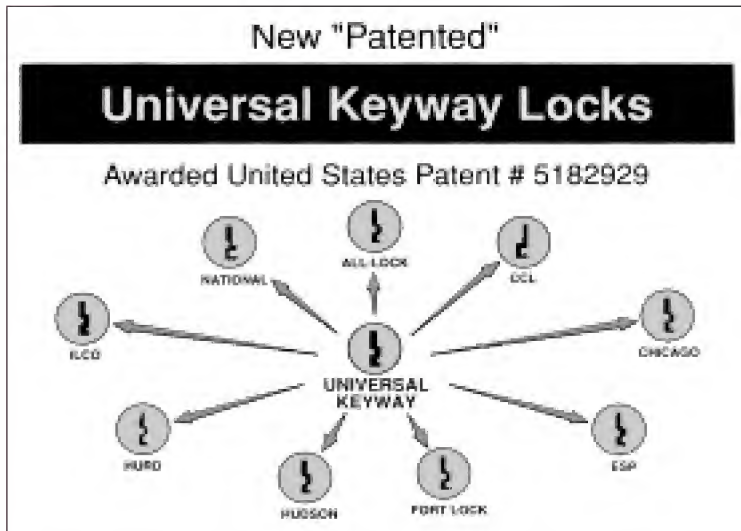
accepts many other manufacturers' key blanks and will operate with the key code system (see *Illustration A*).

*Illustration B*, is a Universal Keying Matrix, indicating which Fort Multifunction Universal Lock is used for which key profile.

This is important when you have another manufacturer's locking system in the field and you wish to build onto that existing system by adding locks made by Fort Lock and still use the same

The concept of Multi-Function is to make one bag of components available to produce many different functioning locks. There are up to six different functions in a single bitted lock bag. This enables the locksmith to carry fewer locks in inventory while still having complete stock on hand.

What's even better is the Multi-Function bags are color coded



**A. All Fort's cam locks are designed with the Universal Keyway which accepts many other manufacturers' key blanks.**

Keyway locks and the new Special Interchangeable key blanks.

The Universal Keyway locks are designed into all 23000 and 24000 series locks with the standard Fort Lock key blanks (54G for the 23000 series, OOV and SOOV for the 24000 series). This series of locks can also be produced with special interchangeable key blanks.

All Fort's cam locks are designed with the Universal Keyway which

existing keys. On the other hand, Fort's cam locks supplied with the Universal Keyway can also be made with special key blanks which will fit into and operate many other manufacturers' cam locks. Some of the manufacturers are All Lock, CCL, Chicago, ESP, Fort Lock, Hudson, Hurd, Ilco, Lori, and National.

Universal Keying Matrix				
MANUFACTURER	KEY CODE	KEY PROFILE	REP. BLANK	MULTIFUNCTION UNIVERSAL LOCK BAGS
ALL LOCK	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
DCL	54-400	54-400	54G	•
	54-400	54-400	54G	•
CHICAGO	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
	54-400	54-400	54G	•
ESP	54-400	54-400	54G	•
	54-400	54-400	54G	•
FORT LOCK	54-400	54-400	54G	•
	54-400	54-400	54G	•
HUDSON	54-400	54-400	54G	•
	54-400	54-400	54G	•
HURD	54-400	54-400	54G	•
	54-400	54-400	54G	•
ILCO	54-400	54-400	54G	•
	54-400	54-400	54G	•
LORI	54-400	54-400	54G	•
	54-400	54-400	54G	•
NATIONAL	54-400	54-400	54G	•
	54-400	54-400	54G	•

**B. A Universal Keying Matrix, indicating which Fort Multifunction Universal Lock is used for which key profile.**

for easy identification. Also, complete installation instructions are printed on the back of every bag. Multi-Function cam locks are bagged with Fort Lock's



**1. A sampling of Fort Lock products.**



**2. The multi-function tubular cam lock.**



**3. There are three tubular switch locks. The MFSW3-1138, the SW2-1138AD and the SW20-1138MC.**

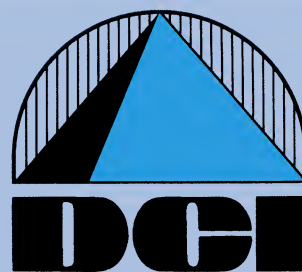
patented Wonder Washer, which allows for installation into either wood or metal without the use of a double "D" punch.

**M**any of Fort Lock's popular lock series are designed for multi-function usage in color coded bags. Included in the Multi-Function line is: single bitted cam locks; wood drawer/door locks; Gem tubular cam locks; single bitted showcase locks; double bitted cam

locks; Apex level 1 cam locks; double bitted showcase locks; Gem tubular switch locks and metal desk drawer locks; security products/ security professional.

The locksmith can carry several of each of the multi-function locks along with the Multi-Function rekey kit and reduce the amount of stock on his service truck. A sampling of these products can be seen in *Photograph 1*.

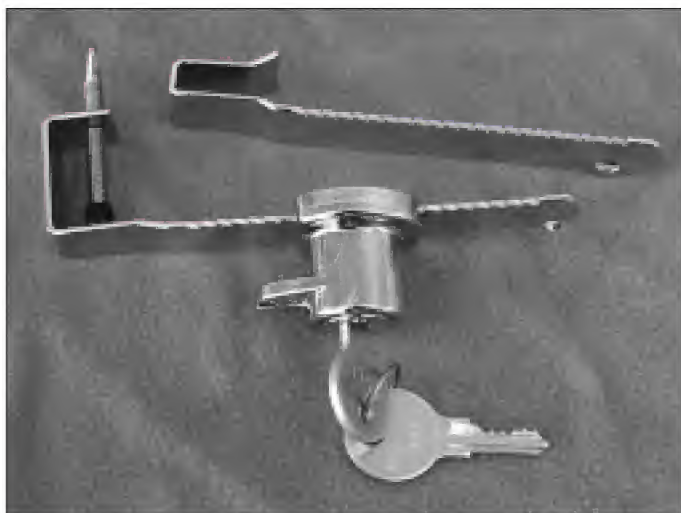
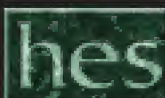
The multi-function tubular cam lock (see *Photograph 2*), comes in 5 different lengths: 1/ 2", 23/ 32", 15/ 16", 1-5/ 32", and 1-1/ 2".



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**4. The showcase lock includes two one-way locking bars.**

There are three tubular switch locks (see Photograph 3).

The MFSW3-1138 lock is a maintaining and momentary contact, single pole, double throw switch. It is UL rate at 17 Amps, 28VAC, 250VAC. Lead length on the wires is ten inches. The dimension is 1-3/8 inches.

The SW2-1138AD rekeyable switch lock with removable retaining pin maintains contact at 3:00, and is a

single pole, single throw switch. It is 110-120VAC, 10 Amps (resistive load), key removable at 12 and 3 with a lead length of 10".

The SW20-1138MC is also a rekeyable switch lock with removable retaining pin, momentary contact, single pole, single throw switch. It is 110-120VAC, 10 Amps (resistive load). Operation: 90 degrees clockwise turn contacts closed - spring back to 12:00,



**5. The 23000 series cam locks.**

key removable. It is 1-3/8 inches long with 10" leads.

The showcase lock (see Photograph 4), includes two one-way locking bars. One for wood and one for glass. It has a removable cylinder for rekeying and an anti-spread housing.

The 23000 series cam locks (see Photograph 5), is available in both a stainless steel and brass finish. Both finishes come in the following lengths:



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**6. One of Fort's newest locks which is rather unique is the new 23008 wood drawer door lock.**

7/16", 5/8", 7/8", 1-1/8", 1-3/8", & 1-3/4".

One of Fort's newest locks which is rather unique is the new 23008 wood/drawer door lock (see Photograph 6). It is available in either a stainless steel or brass finish,



**7. The retainer shown must be pressed down when installing or removing the core.**



**8. The lock converted into the spring latch version.**

comes complete with screws, is rekeyable and comes in three lengths: 3/4", 7/8", & 1-1/8". The 23008 can also be converted into either a spring latch or a dead bolt lock.

The retainer shown in Photograph 7, must be pressed down when installing or removing the core from the lock housing.

Photograph 8, shows the lock converted into



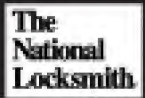
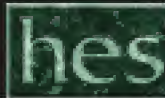
**9. Once both springs are installed, replace the back plate as shown.**



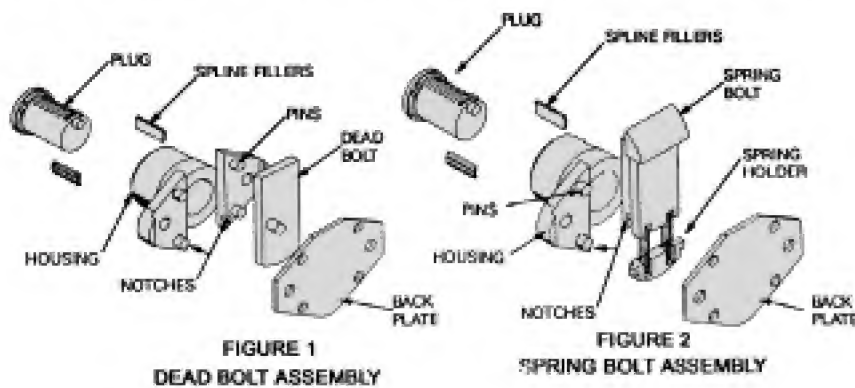
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## MFW. 23008 WOOD/DRAWER DOOR LOCK



**C. A view of both the springbolt and deadbolt assemblies.**

the spring latch version. I am pointing to the spring holder which fits into the housing when the spring latch is used. With the spring holder is fitted into the housing, insert two springs for the latch.

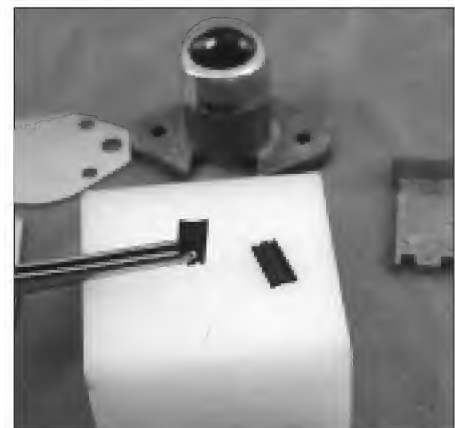
In *Photograph 8*, one of the two springs has been installed. Once both springs are installed, replace the back plate as shown in *Photograph 9*. In *Photograph 10*, the deadbolt conversion is shown. *Illustration C*, is an exploded view of both the

springbolt and deadbolt assemblies.

This lock has one last unique feature. It is called spline fillers. These locks come with two spline fillers. Spline fillers are to restrict key removal. The lock without spline fillers rotates 90 degrees, allowing key removable in both positions. Adding spline fillers will allow key removable at the 12:00 position only. *Photograph 11*, shows what the spline fillers look like.



**10. The deadbolt conversion is shown.**



**11. Spline fillers restrict the rotation of the core.**



**12. Spline fillers are inserted into the lock as shown.**

*Photograph 12*, shows how the spline fillers are inserted into the lock.

I am sure that once you are familiar with Fort Locks, you will find them very useful and convenient.

For more information on Fort Locks call: 800-800-5625.

### **Points to Ponder:**

Apologizing is being polite too late.

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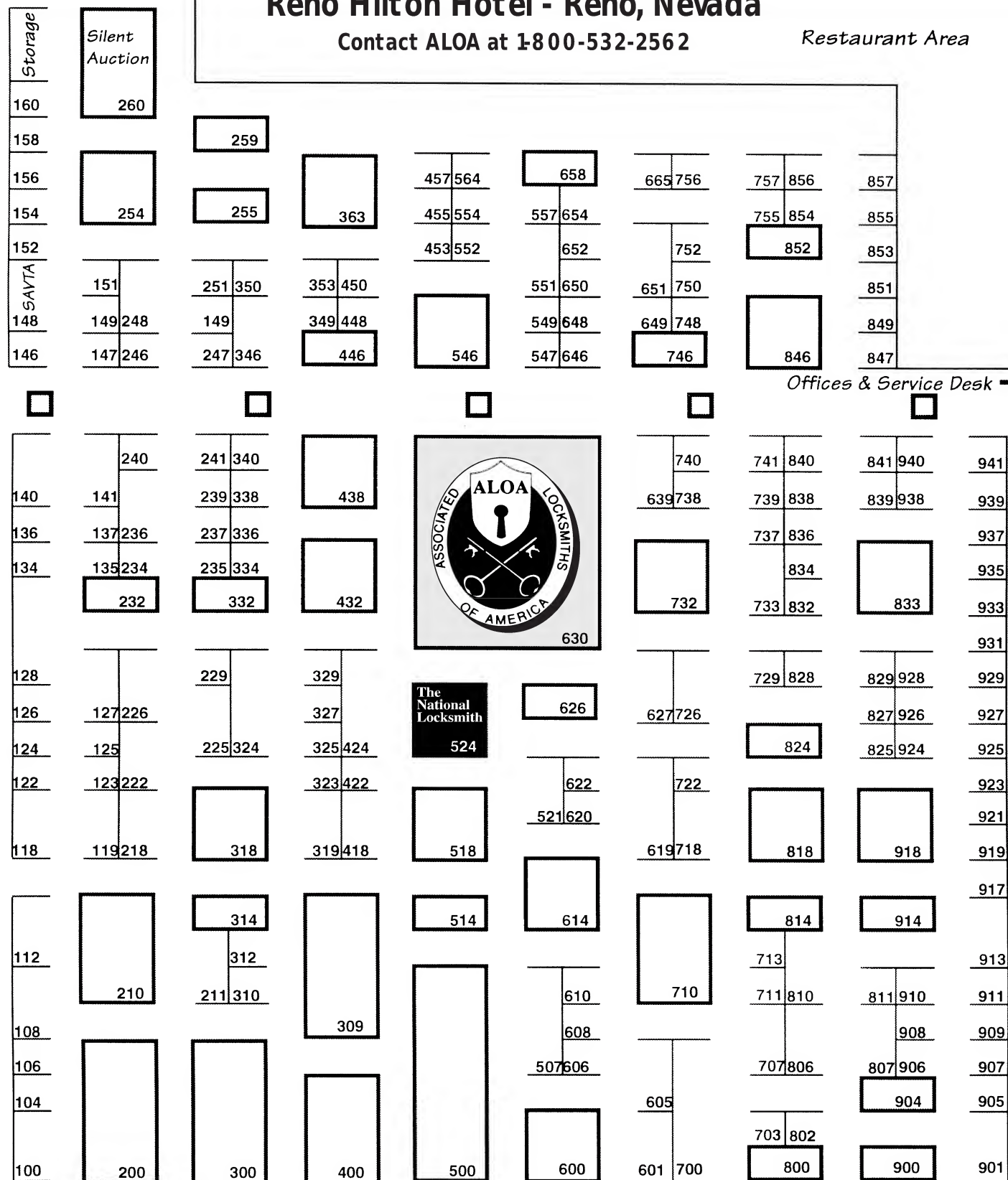
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# Reno-S parks Convention Center

## Reno Hilton Hotel - Reno, Nevada

Contact ALOA at 1-800-532-2562

Restaurant Area

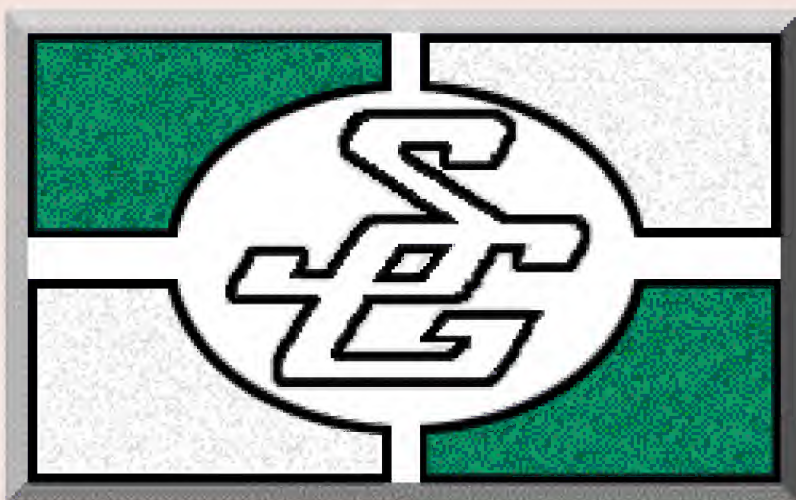




# ALOA '97 Security Expo Booth Listings / July 28-August 2

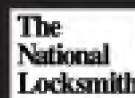
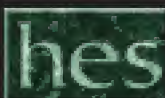
EXHIBITOR	BOOTH #	EXHIBITOR	BOOTH #	EXHIBITOR	BOOTH #	EXHIBITOR	BOOTH #
A & B Safe Corporation.....	907	Dugmore and Duncan, Inc. ....	824	Linear Corporation.....	908	ROFU International Corp.....	225
A-1 Security Mfg. Corp. ....	247	Emergency Road Service, Inc. ....	234	Lockmasters, Inc.....	614 & 905	Rutherford Controls Inc. ....	713
Aable Locksmiths.....	825	Enhance.....	910	Locksmith Publishing Corp.....	619	S. Parker Hardware Mfg.....	552
Abus Lock Company.....	605	Escalera, Incorporated.....	756	Lori Lock.....	806	SAF T LOK.....	363
Acme Security Systems.....	904	ESP Lock Products Inc. ....	314	Low Tech Products.....	146	Sargent & Greenleaf, Inc. ....	318
Adams Rite Mfg. Company.....	432	ESSEX Industries, Inc. ....	651	Lucky Line Products, Inc. ....	547	Safe & Vault Technicians Assoc. ....	148
Adesco Safe Company.....	521	Eurasia Pacific.....	353	M.A.G. Engineering & Mfg.....	424	Schlage Lock Company-Primus ....	710
ADI Inc. ....	810	Folger Adam Security, Inc.....	254	Major Manufacturing, Inc.....	239	Schwab Corp.....	518
Adrian Steel Company.....	626	Fort Lock Corporation.....	601	Markar Products Inc.....	838	Secura Key.....	246
AdvanSec - Adv. Sec. Concepts ....	750	Framon Manufacturing Company....	100	MARKS, U.S.A. ....	741	Securtron Magnalock Corp.....	
Aero Lock.....	126	Gardall Safe Corporation.....	108	Marray Enterprises.....	906	.....	914 & 918
Aiphone Intercom Systems.....	122	Geoffrey Industries.....	919	Mas-Hamilton Group.....	210	Security Door Controls.....	112
Alarm Lock Systems Inc. ....	814	Global Door Controls Inc. ....	802	Master Lock Company.....	707	Security Equipment Corp.....	349
Alarm Monitoring Services.....	911	Glynn Johnson.....	608	Maxis Security Locks.....	124	Security Industry Association.....	849
All-Lock Company, Inc.....	211	Greater Philadelphia Locksmith		MBA Specialty Tools.....	118	Security Innovations, Inc.....	312
Allstate Insurance Company.....	450	Assoc. ....	926	MDS Incorporated.....	310	Security Lock Distributors.....	332
ALOA.....	630	GT-85 International, Inc. ....	650	Medeco Security Locks.....	200	Select Products Limited.....	123
ALOA Legislative Committee.....	913	Guardian Personal Security.....	564	Meilink Safe Company.....	400	Sentry Group.....	229
American Lock Company.....	418	H.E.S., Inc. ....	551	Midwest Safe Distributors Inc. ....	832	Silca Keys USA, Inc.....	300
American Security Products.....	627	Handi Disc / Handi Bits.....	940	Midwest Wholesale Hardware.....	448	Silent Auction.....	260
American Security Distribution.....	818	Harloc Incorporated.....	457	MIWA Lock USA.....	827	Stone & Berg Wholesale.....	251
Architectural Control Systems.....	807	Highland Glen Products, Inc.....	546	Morse Watchman Inc.....	136	STRATTEC Security Corp. ....	226
ASP Inc. ....	222	Homeowner's Marketing Services..	924	MUL-T-LOCK USA, Inc. ....	309	Strong Arm Security, Inc.....	901
ASSA, Arrow, Abloy.....	800	HPC, Inc.....	600	Nanotechnology, Inc.....	125	Supra Products, Inc. ....	941
B-E Industries Inc.....	141	Hurd Corporation.....	648	National Burglar & Fire Alarm.....	323	Taymor Industries, Inc. ....	740
BiLock North America Inc. ....	665	IDN Incorporated.....	733	National Cabinet Lock.....	514	Tech-Train Productions.....	128
Blackhawk Products.....	334	Ilco Unican, Corp.....	500	The National Locksmith....	524	TESA Access Control.....	140
Buddy Products/ Locksmith Division...		INTELLIKEY Corp. ....	841	National Security Safe Co.....	729	The Hartford.....	549
.....	241	Intermountain Lock & Supply.....	726	New England Lock & Hardware.....	325	Top Notch Distributors.....	119
Capricorn Electronics Inc. ....	748	J et Hardware Mfg., Co.....	639	Newman Tonks.....	700	Trans Atlantic Co.....	938
CCL/PRESTO LOCK.....	737	J LM Wholesale, Inc. ....	106	Ningbo Light Industrial Product.....	811	Trine Products Company.....	327
Chicago Lock Company.....	340	KABA High Security Locks.....	833	NKL Industries Inc.....	557	Turn 10 Wholesale.....	846
Clark Security Products.....	319	Keedex Manufacturing.....	847	Northwest Locksmith Assn.....	134	U-Change Lock Industries.....	336
Commercial Van Interiors.....	255	Keri Systems, Inc.....	127	Nostalgia.....	329	U.S. Lock Corp. ....	507
Corbin Russwin Arch Hdwr.....	446	McKnight Automation, Inc. ....	622	Olympus America, Inc.....	135	Unlocks Inc.....	422
Corby Industries Inc.....	852	KEY-BAK/West Coast Chain Mfg..	722	Olympus Lock Company.....	829	USCAN Lock Distribution.....	324
Curtis Industries.....	746	Knaack Manufacturing Co.....	900	Omaha Wholesale Hardware.....	739	Von Duprin, Inc.....	610
Detex Corporation.....	840	Knight Safe Mfg.....	928	Papaiz USA Ltd. ....	236	Nevada Lock Supply.....	620
Direct Security Supply, Inc.....	703	KSP.....	235	PDQ Manufacturing.....	350	Weiser Lock Company.....	732
Don-J o Manufacturing, Inc.....	738	Kwikset Corporation.....	232	Perry Blackburne, Inc.....	346	Weston Key Systems.....	711
Door Controls International.....	338	LAB Security.....	718	Prime-Line Products Company.....	240	Wilco Supply.....	857
Doorking.....	929	Labor Saving Devices.....	147	Pro-Lok.....	218	Winfield Architectural Lock.....	658
The Doma Group.....	836	LCN Closers/Div. of Ingersoll.....	606	R.Q. Associates.....	828	Yale Security, Inc.....	438
DRK Specialties.....	839	Liberty Safe & Security.....	455	RA-Lock Co.....	834		

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# STOPPERS

## Commercial Van Interiors

Commercial Van Interiors recently updated several of its popular pre-packaged locksmith van interior arrangements. Updated for the newer vehicle style, all full size packages offer a universal fit in all van makes. Most mini-van packages are universal, with special designs for extended wheelbase models.



In addition to a variety of modular shelving, bins, drawers, cabinets and accessories ideal for the mobile locksmith, several packages feature a Commercial Van's space saving Redi-Bench retractable workbench module and Sloped Key Machine Bases which tilt cutting machines toward the locksmith for easier viewing of cutting operations.

## Keedex Tamper Resistant Screwdriver

The Keedex Tamper Resistant Screwdriver, part #TAMPER, comes



with eleven interchangeable tips. Included are the following tips: six tamper resistant Torx tips (T10, T15, T20, T25, T27 and T30), three tamper resistant hex tips (5/32", 3/16" & 7/32") and two spanner tips (#6 & #8). All the tips fit into the screwdriver's storage handle.

## Detex ECL-600 Bratch Fire-Rated Panic Hardware



The Detex Corporation announces the addition of the ECL-600 "Bratch" fire-rated panic hardware device. The new unit incorporates a deadlocking latchbolt for secure automatic relatching and a saw-resistant deadbolt. The ECL-600 installs on door widths from 32" to 48" and can be used on pairs of doors with the F90KR mullion. The ECL-600 is covered by a one-year warranty.

## AMSEC'S Premium UL Listed 2 Hour Fire Safes

AMSEC'S new premium fire safes carry the UL Class 350 degree, 2 hour fire and impact rating keeping valuables safe from temperatures up to 1850 degrees and disastrous falls from a three story burning building. Each safe is accented in a durable sandstone or granite textured finish, brass plated dial, decorative emblems and an elegant plush velour interior. Each safe carries a lifetime



replacement warranty! Optional Electronic Locks are available.

## S. Parker's Narrow Stile Panic Exit Devices

S. Parker Hardware has introduced a new lower cost entrant in the market for narrow stile Panic Exit Devices. The non-handed devices are UL and CUL listed in the U.S. and Canada, respectively. They are available in both horizontal and concealed vertical rod designs and are aimed both at manufacturing and distributor markets.



In addition to an improved internal mechanism that efficiently transmits applied force to the lock mechanism, the device's pushbar shape is new. The gently rounded bar extrusion projects a large surface area to the palm of the hand ensuring ease of operation.





Continued from page 52

### Wireless Drive Up Announcer by Optex



Optex Inc., introduces a new "Wireless" Drive Up Announcer. The result of a growing demand for greater awareness and communication in residential and or commercial markets. The "Wireless" Drive-Up Announcer, immediately alerts you that someone has driven into your drive-way or making a delivery. No more surprises.

When a visitor or vehicle passes through this detection pattern, it then sends a radio signal up to a range of 70 feet. The RC-2FE, receiver unit located inside the home or office will sound one of 3 pleasant chime tones to alert you.

### New Pro-Lok Products



Pro-Lok® is aggressively introducing new products; the new car opening update and volume, new opening tools, tool carrying case, gun lock, key decoder, master pin follower, and 4 piece follower set. Also two padlocks drilling fixtures, one for disk locks, and one for rekeyable locks that saves the body and cylinder for reuse.

### Defiant Safe Company

International introduces the all new TannVault™ TL-15 safe manufactured by John Tann, Ltd. These composite safes retain Tann's 200 year old



dedication to superior quality. Standard features include glass plate relocker; anti-punch sleeve; UL Group II combination and key lock; removable key locking cupboard; adjustable shelves. Next day shipping on safes ranging from 1.2 to 11.2 cubic feet.

### Sentry Introduces Fire-Resistant Safe

Ideal for home or office, the Sentry Lock Safe, Model 1610, combines UL-classified fire protection with the enhanced security of a reliable, easy-to-use electronic lock. The lock features an easy-touch, push-button keypad with two access code options: a permanent factory pre-set code that is unique to each safe and survives battery failure, and a user-selected code that can be programmed in seconds and changed whenever desired.



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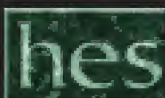
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### HPC's MasterKing™



HPC's MasterKing™ is the most comprehensive master keying

program available. It allows you to generate master key systems in two different ways - both list and page format. MasterKing is able to generate one to five levels in list format and upwards of five in page format. Plus, it contains a database of over 50 manufacturers, supports cross-keying and is fully compatible with HPC's Codemax™.

### MBA Offers Electronic Time Delay Lock

MBA is proud to offer the new Legault EM-401 electronic time delay safe lock. This inexpensive lock is



available with a wide variety of options, including bolt style, key bypass, and signaling features. The EM-401 shares the same footprint of other modern safe locks.

### The Magazine Lock by Saf-T-Lok



The magazine lock is a precision, miniaturized, all mechanical, combination lock that is contained in the bottom of a fully functional magazine. The lock is installed simply by inserting the magazine into the handgun. When the lock is engaged, it prevents the gun from firing and prevents the magazine from being removed unless one of 10,000 possible combinations is entered.

### Keri Introduces IntelliProx™ 1000



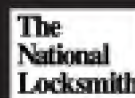
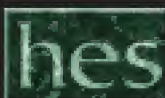
Keri Systems has introduced the revolutionary IntelliProx 1000, a product which can be used as an economical single door keyless entry access control system for up to 500 users. It can also be used in place of a standard proximity reader with 26 bit Wiegand output for connection to larger systems, but at significantly lower cost than existing reader-only products on the market. When used in



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place of a traditional proximity reader on a larger system, the IntelliProx 1000 also has the additional capability of providing door control backup in case the primary controller becomes non-operational.

#### **ACSI Series 1500 Electric Dogging**



Architectural Control Systems, Inc. (ACSI) Series 1500 Electric Dogging allows continuous electric latch retraction and dogging of fire-rated exit devices simultaneously. When the ACSI 1500 is energized, first time mechanical activation of the push bar will continuously hold the push bar down and the latch bolt retracted in the unlocked position. When power is removed or interrupted, the latch bolt will extend and the push bar is released.

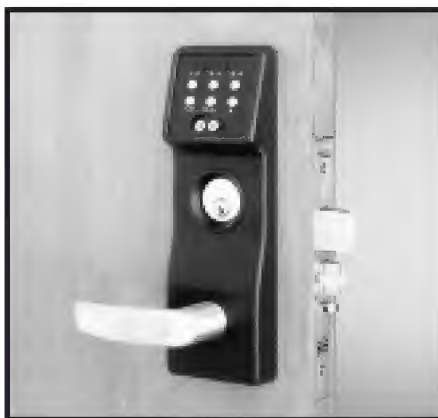
The ACSI 1540 is a UL listed fire-rated exit devices and is available for Corbin Russwin, Yale Von Duprin, Sargent, Precision, Arrow, American Device and Monarch exit devices. The ACSI 1540 is available in rim, mortise and vertical rod exit devices.

#### **HIT-44 Drill Master by Major Manufacturing**



Major Manufacturing introduces the newest installation tool in the HIT SERIES. The HIT-44 Drill Master can be used to install standard key in knob and deadbolt locks on both wood or metal doors. The HIT-44 will accept multi-spur bits, auger bits, or hole saws. All drill guides and threaded shaft holes are lined with bushings and may be replaced if needed. Backset is calculated from the center line of the door and may be changed from 2-3/8" to 2-3/4" with the turn of a knob, leaving no loose parts to store or misplace. The HIT-44 has soft padded jaws for door protection and greater gripping power on the door.

#### **Locknetics Durability In The Clutch**



The Locknetics CM 5400 electronic mortise lock employs a patented clutch-controlled outside lever handle for durability and vandal resistance. The battery powered CM 5400 series combines programmable, micro-processor control with the proven strength of a Grade 1 mortise lockset. Program up to 150 different user codes and/or electronic data keys per lock, and integrate with the entire family of Locknetics microprocessor based products. The audit trail option displays the last 100 events. Available with or without deadbolt.

#### **Vindicator MicroLock**



The Vindicator MicroLock 40 is a combo-key (combination plus electronic MicroKey) audit trail electronic safe lock. In addition to the standard programmable time lock and delay features, the lock also provides multi-door control for multiple users while maintaining a complete audit trail of all safe activity. The MicroLock 40 is easy to retrofit as well as fast and simple to operate.

#### **BiLock "QC" Locks**

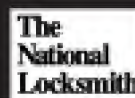
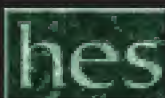


The BiLock "QC" product range utilizes a common removable core for all BiLock products including, Electric



# ASP Covers the World of Auto Locks

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Switch locks, Mortise, Rim, and Key in Knob Cylinders that retro-fit many major manufacturers hardware. This unique system requires no figure eight carrier, and comes with the patented BiLock U-Shaped Key.

#### ***Knight Safe DS Series***

The Knight Safe "DS" Series (Depository Safe) is designed for daytime protection of cash and deposits. Complete with oversized doors to accept cash trays, the "DS" Series is available in top-load recessed rotary and front-load. Key Locking



Dials and double or single nose locks are available as options.

#### ***ABUS Offers New Brass IC Core Industrial Padlock!***



ABUS Lock Company introduces the new 831C/45 Interchangeable Core Brass Padlock, which features the exclusive "Z" Bar. The all brass body precision manufactured 831C/45 also features stainless steel double locking balls and springs to resist the most severe environmental punishment.

The exclusive "Z" bar provides easy change capability from key retaining to non key retaining without tools. The 831C/45 interchangeable Core Padlock also features an emergency security breach lock out feature, the lockout feature can immediately restore security by security personnel until new IC cores are ready for installation.

#### ***Harrison Electronics HellFire 300***



Harrison Electronics introduces the first totally reliable self-contained remote alarm, the HellFire 300. This is the under-the-hood unit you've been waiting for: the easy three-wire basic installation is fully upgradable to 7-wires using a plug-in harness. The code learning microprocessor lets you easily field program extra transmitters which are compatible with all HellFire alarm models.

## **NATIONAL AUTO LOCK SERVICE, INC.**

***National Auto Lock Service, Inc. offers a wide range of equipment and services for the Automotive Locksmith. From tools and hard to find key blanks to transponder programming, we can take the mystery out of car service. We accept credit card orders, and can ship COD. Contact us for the latest in automotive technology.***

**[www.laserkey.com](http://www.laserkey.com)**

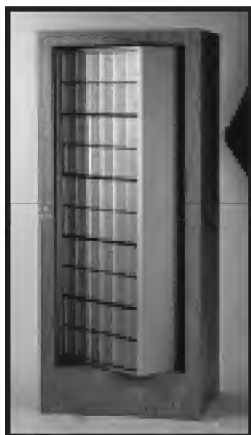




Falsing-free dependability is insured by an interior seal in the siren and a specially-coated PC board for complete moisture resistance, as well as computer and cooling fan electronic filter spike protection.

#### **Salsbury Industries Rotary Mail**

Salsbury Industries has recently added the Free-Standing Rotary Mail Center to its mailboxes and mailroom equipment product line. Constructed of 16 gauge steel, this heavy duty mail center can hold a maximum of 60 brass or aluminum style mailboxes (optional small, medium and large sized openings are available). To operate, the user unlocks the unit and rotates the inner cabinet 180 degrees so that the rear of the mailboxes are facing the front. After distributing the mail, the inner cabinet is rotated back to the tenant access position.



#### **Treskat CodesOnCall**



While Treskat is best known for its 9 locksmith computer programs, it also offers a new 24 hour CodesOnCall™ hotline. With this service locksmiths obtain code bittings and padlock combinations using any touch tone phone, even a cellular phone, and you don't even need a computer

#### **Diplomats Compromise - The DD-QRA Doesn't!**



Tradeoff's and compromises between life-safety and high security aren't required anymore. Now, safety and security successfully merge in the DD-QRA by Phoenix Industries. Going the standard concept of the alarmed panic exit device one better, the DD-QRA also provides the genuine high security of a true two point dead bolt lock.

#### **A & B Offers Depository Safes**



A & B Safe Corp. is proud to announce a new addition to its depository line of safes. The new front load unit will be available in three sizes. One of which will be equipped with a reversible door to allow the unit to be also used as a rear load unit.

#### **Aable's Ford 8 Wafer Ignition Removal Tool Kit**



Frank Markisello, CRL, of Aable Locksmiths has designed a tool kit to remove Ford 8-cut ignitions. You can turn all these ignitions including the Mercury Villager, and Nissan Quest to the on position in less than 5 minutes for fast removal. With no damage to the lock, just fit the key to the coded wafers and you have one key to all the locks. You can also use the sidebar breaker tool and turn the ignition to the on position in 60 seconds. Again, with no damage to the wafers, just fit the key to the wafers and install the wafers in the new plug.

#### **Adams Rite Exit Devices**

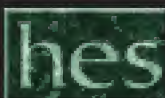
Adams Rite is a leading manufacturer of durable, attractive



Free  
freight!!

No middle  
man!!

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ADA-friendly exit devices. Their clean, unobtrusive pushbar designs are not only strong, but help reduce wear, while satisfying ADA guidelines for accessibility and clearance. A full line of styles, finishes and options is available for any type of door application.

#### **All Lock Service Kits**

All-Lock Service Kits minimize investment and maximize service. Designed for locksmiths, All-Lock offers O.E. quality kits for all domestic and major import vehicles. A wide selection provides kit options to fit both budget and service needs. As the sole provider of Ford 10-Cut and



Saturn pinning kits and uncoded locks, All-Lock and the locksmith tackle automotive work head-on.

#### **American Lock Adds Resettable Combination Padlocks**



The new additions to American Lock's solid brass series are available in two body widths; 1-1/2" (40mm) and 3/4" (20mm). Both sides have cut resistant steel shackles and a 4-dial "set your own combination" feature that gives the user private, keyless security.

The model RS441CC is a single pack, 1-1/2" (40mm) padlock suitable for any indoor or outdoor security application. Mode RS20TCC is a convenience two-pack of 3/4" (20mm) padlocks, ideal for luggage, sports bags, golf bags, or other personal security uses.

#### **Domino Engineering Keyless System**



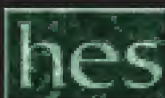
# Major

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Domino Engineering's low-cost keyless entry system (SC-GD1) allows convenient and secure opening and closing of a garage door when a homeowner's remote control is not available or convenient to carry. The keypad is compatible with all garage door openers and is the perfect solution for families who need keyless access for their children. The SC-GD1 features simple low-voltage wiring, consumer-friendly programming, lighted keypad, personal user code, weatherproof design, and a 5 year warranty.

#### **Curtis Announces the 5100**



Curtis is debuting its 5100 Code Cutter at ALOA '97. This new code cutter cuts automotive keys by code and can also duplicate keys for house, commercial and automotive applications. The Curtis 5100 uses depth knobs and spacing keys when cutting by code. The 5100 joins the No. 15 Code Cutter (clipper) and PC+ to make the most complete line of automotive code cutting available.

#### **Cargolock Van Security**



Cargolock is an innovative new security system designed specifically for commercial vans that carry valuable cargo. Tradesmen have traditionally used padlocks on the doors to keep thieves from stealing their valuable tools and equipment. Cargolock provides a better and much more convenient method for securing these vehicles by using remote control deadbolt locks installed inside the rear of side doors of the van. The doors can't be opened from outside the vehicle. The system is tailored

individually for Chevrolet, Ford or Dodge vans, and is designed for simple, quick and easy installation.

#### **What Is Door-Aid?**



Door-Aid is an economical, easy-to-install, power door opener with activating buttons on both sides of a door that allow physically-challenged individuals, elderly, and anyone laden with packages or children, to open a door with just the touch of a button. Some highlights of Door-Aid include: On demand operation, quick and easy installation, maintenance free motor, wireless activation, security compatible, dependable, economical, and safe. It meets ANSI code, is UL approved, and is in absolute compliance with ADA guidelines.

#### **Dorma Introduces Closer Options for Pocket Door Applications**



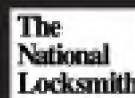
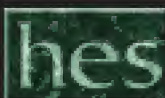
The DORMA Group has introduced a new series of track closers for pocket door applications. These include 7600, 7800, TS 83 and TS 93 track closers. Applications can be furnished closer-only or as a package consisting of the closer and three pocket pivots for labeled and non-labeled openings. All closers in the series are designed for 90 degree pocket doors.



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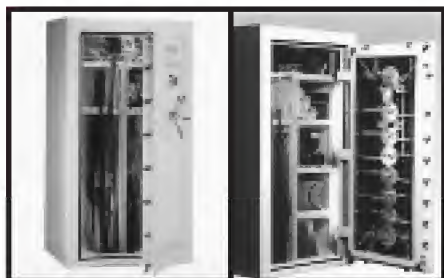
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The TS93 is also available in three additional applications to accommodate pocket doors from more than 90 degrees to 120 degrees of opening; more than 120 degrees to 170 degrees of opening; and doors that open a full 180 degrees.

#### Fort Knox Yeager Mechanism



No other manufacturer uses such a high performance Rack & Pinion multi-gear locking mechanism than Fort Knox. Each locking bolt operates independently of one another, with 30 precision gears driving up to 28 one inch locking bolts. The 5 to 1 reduction on the gears acts as a transmission giving additional strength to each bolt, plus, a drill deflector runs the entire length of the door frame. Hard-plate with ball bearings recessed in critical areas for protection against a drilling attack along with a mechanical relocker as back-up security is also used.

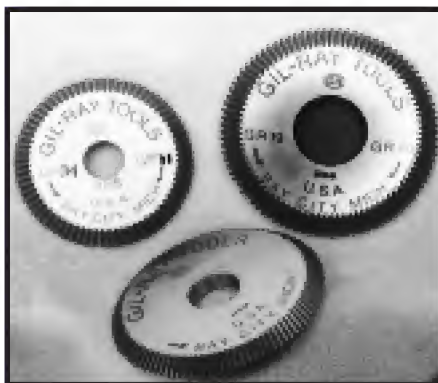
#### International Locking Device



The Dead Bolt Claw Lock was designed and constructed to provide the residential and/or commercial user with a heavy duty lock device that incorporates a double cylinder dead bolt locking means into the unit.

The unit simply bolts onto existing gate frames and installation time is about 10 minutes. The gate frame collars have pre-set holes for installing tech screws which prevent rotation of the unit on the gate frame.

#### New Cutter Wheel for Borkey® Rytan® & Silca® Key Machines



Gil-Ray Tools Inc. has recently designed a new wheel to replace the standard quality cutters for Borkey® Rytan® and Silca® key duplicating machines. They replace the standard size 80 x 5 x 16 mm cutters. These new cutters are made of premium CPM® M4 High Speed Steel. They feature a deeper/stronger tooth design and have precision ground teeth, for longer service and accurate key duplicating. This type of steel is known to last up to 3X longer than conventional M2 HSS cutters.

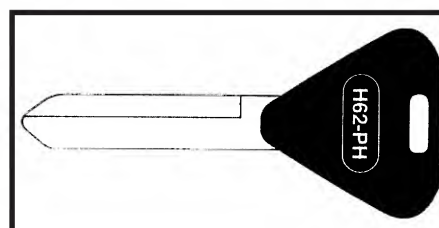
#### Jensen's Little Tool Kit Saves Time and Money



Jensen Tools Inc., offers a convenient, compact, 31-piece collection of tools called The Mean Little Kit (or JTK-6). The JTK-6 can be particularly useful where accessing, connecting, dismantling equipment is required. Included in the kit are a variety of screwdrivers and pliers, a 10-piece hex key set, 4" adjustable wrench, files, scissors, knife, rule, wire stripper/cutter, alignment tool, burnisher, soldering iron, solder aid, fork and hook.

#### Jet Adds 13 Keys

Thirteen new key blanks are available from Jet Hardware. Among them are two new Club keys (CB16 & CB17) and Nissan DA31 in nickel silver. New to the Silver Line's



selection of Best is composite 1A1, BA1 blanks. Other Best offerings from Jet include BA, DE and JK after-market key blanks. New plastic head keys from Jet are Ford H62-PH, H65-PH and H76-PH; GM B91-PH and Saturn B96-PH. Import additions include Mazda MZ19-PH and MZ27-PH and Nissan DA37-PH. The additions are detailed in Jet's catalog supplements 596.10 and 596.11.

#### L & S Security Products Architectural Hardware



L & S Security Products manufacturers a line of interchangeable key switches and push-button controls. Key switches provide an inexpensive and compatible method to provide restricted control of electrically operated door systems, alarms, equipment, lights, etc. limiting actuation to authorized key carrying personnel.

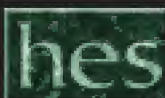
Features include a patented unique one piece construction manufactured of a die cast heavy duty aluminum. Plates are available for single-gang boxes or in a narrow size for hollow metal frame mounting.

#### Lift-A-Load Trailers



Lifetime Lift-A-Load Trailers are now available in capacities ranging from 4,000 lbs. up to 30,000 lbs.





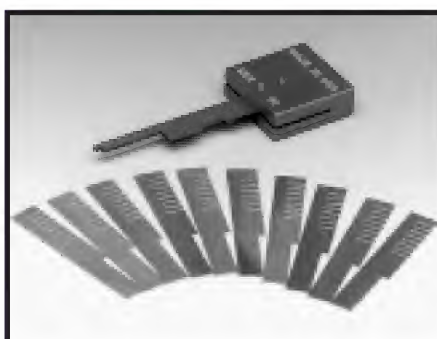
Continued from page 64

Lift-A-Load Trailers offer the capability to load at ground level, dock level or anywhere in between. The trailer bed remains level at all times.

A 36" Long Tailgate/ Ramp makes loading any heavy, low ground clearance item easy. The steel diamond plate floor provides traction and a solid base for small diameter tires.

#### **New LeFebure 7700 Opening Tool from Lockmasters**

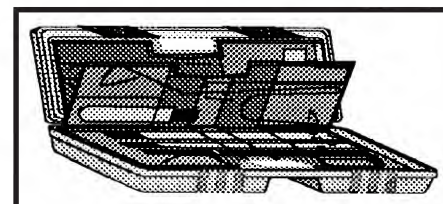
Tired of being forced to replace those expensive LeFebure 7700 series locks? The new LeFebure 7700 Opening Tool can open LeFebure 7750 and 7737 flat renters safe deposit



locks in under 10 seconds with no damage! This tool is designed to work on locks having small or large diameter noses found on both 3/8" and 1/2" (thick) doors using a flat renters keyway. Ten blades are

included. Additional blades may be purchased separately.

#### **Auto Lock Out Tool Kit**



The LT1000 Supreme Master Automotive Lock Out Tool Kit from LTI Tools contains 18 different tools and an updated, fully illustrated comprehensive instruction manual to handle most emergency lock outs. Tools come in a durable custom carrying case with vinyl inserts to prevent loss or damage. Kit tools include a mini flashlight, S-hook, several jim tools, GM tool, gas cap pick tool, door wedge, lock tech tool, door jack, Chrysler/ Camry tool, J-tool, peg leg tool and Porsche/ vent tool.

#### **Lok-Itt Auto-Lok**



The Lok-Itt Auto-Lok anti-theft device, created and manufactured by the Lok-Itt Company, is specially designed to secure General Motors Trucks and Sport Utility vehicles against theft.

The technique used primarily by car thieves against General Motors vehicles is known as stripping the column. The main housing of the Lok-Itt Auto-Lok is secured snugly around the steering column by three small screws. It provides the necessary protective barrier against steering column penetration. The main housing remains on the steering column around the clock.

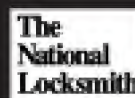
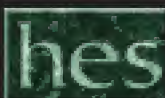
#### **Luck Line Chain Spools**

Their new No. 34350 Ball Chain



***Don't panic!  
We have Security  
Exit Devices.***

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Service Center holds five different spools of chain and nine of the most practical couplings, connectors and pendants. Labels identify uses for each product. Space on header allows room for pricing. Pre-printed measuring tape makes custom cuts simple. Suitable for counter top, slatwall or pegboard.

#### **White Hardware From M.A.G. Makes Fashion Statement**



White is "in," and M.A.G. Security has capitalized on this recent fashion trend by introducing a complete line of high-quality home security reinforcement hardware in this hot-selling decorator color.

Featuring a durable finish for lasting beauty, the new line complements M.A.G.'s existing solid brass and stainless steel door and window products. The line is perfect for consumers who desire a subtle touch for their security hardware so it blends in with white doors and windows in kitchens and other interior areas.

#### **The Key Kop II**

The Key Kop II™ is available with a 1-1/2", 3", 5" and 7" shackle, made of stainless steel, and aircraft aluminum, the unit provides a secure way to keep keys together and under control. Available with choice of Medeco, Duo, Tubar, or Ace lock, and in a variety of keying patterns.



#### **MWI Tamper-Proof Key-Ring**

Morse Watchman's Tamper-Proof Key Rings require no tools to secure the Key-Ring assembly. These



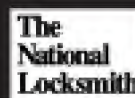
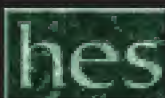
Tamper-Proof Key Rings are available in a variety of colors for security and department coding purposes and are individually stamped with an ID number to prevent substitution. Morse Key-Rings come in three sizes.

**SRI**  
SECURITY  
RESOURCES INC.

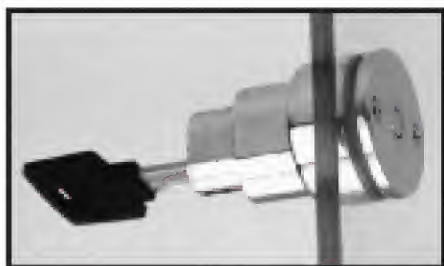
**SRI and Steve Young are  
working together to bring  
you the best in locksmith  
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### Mul-T-Lock Push Type Lock



Mul-T-Lock's newest product is a push type lock for securing glass doors on display cabinets, such as the ones found in jewelry and electronic shops.

The lock is made to be mounted into a 1 1/8" drilled in the glass. This cylinder works on the same key and tumbler like all other Mul-T-Lock products, and can be re-keyed and master keyed.

### Knob and Lever Guards by Ongard Security

Ongard Security Products has the Knob Guard and Lever Guard, which prevent knob wrenching and lever damage. While covering the knob and lever, the Guards allow ease of opening by key from the outside, strengthen doors in the lock area and



give an added security appearance. Units work on in and out swinging doors and have a durable powder coat finish.

### Sargent & Greenleaf's Model 6140 Door Access Control System

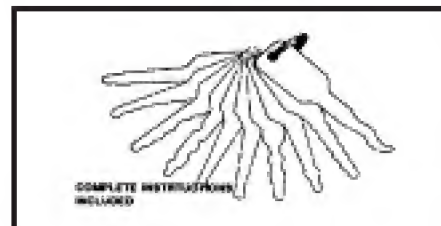
The Model 6140 Door Access Control System was created by combining S&G's UL Listed, Type 2, Electronic Combination Lock, Model 6123, and a modified version of our



U.S. Government latching extension for single door access. Typical applications include ATM rooms, telephone and computer equipment storage rooms, or any sensitive area that requires a high level of security and traffic control.

The battery powered lock requires no special wiring, and all components are surface mounted for quick and easy installation on new or existing doors.

### Jiggler Key Sets by Septon



Septon, Inc. has three jiggler key sets for home, auto, office and commercial use. JIG 10 consists of 10 large keys to open most pin tumbler locks; JIG 6 consists of six medium keys to open most auto locks and RJG 6 consists of six small keys to open small cabinet locks, filing cabinets and small padlocks.

### Quickdraw™ Pistol Safe

Liberty's new Quickdraw™ pistol safe provides excellent security and quick access. The rugged 16-gauge steel enclosure features a programmable electronic lock equipped with an illuminated keypad and auxiliary keylock. More than 1 million combinations may be quickly programmed into the lock.

The Quickdraw™ allows pistol owners to securely store their firearms away from curious fingers while providing the owner quick access to the gun in an emergency.

### Steelman Borescope

Steelman has completed production of a new advanced Borescope. The Borescope is used by placing the lighted mirror shaft into any black void location that requires inspection without disassembling the unit. The



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**Manufacturing Quality**  
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"Steelman" Borescope comes complete with a battery pack, lighted mirror shaft, a sight tube with eyepiece and is packaged in a zippered carry case.

#### **NT Monarch's Security Trim**

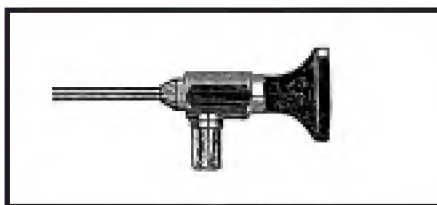


NT Monarch Hardware introduces heavy duty, vandal resistant, ANSI A156.3 Grade One Security Trim. When 35 pounds or more of force is applied, the lever breaks, dropping to the six o'clock position where it continues to operate. The lever will work, even after a minimum of 10,000 destruction attempts.

The Security Trim features a true 360 degree break away feature, thus leaving no internal shear pin to replace.

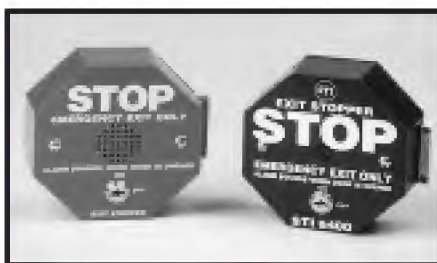
#### **RQ Offers Shorter Scope**

RQ Associates has added a 4 mm X 10 1/4 inch medical rod lens borescope to its line of safe servicing equipment. Available at prices nearly half of what they are in the medical field, the new scope has a fixed focus, 30 degree angle of view/ 80 degree field of view medical rod lens with 10



power magnification and ACMI light guide connection. The unit allows a safeman to view straight ahead from 0 to 30 degrees and have an 80 degree field of view, which allows for viewing through a front or top drill point.

#### **New STI Exit Stopper®**



What amounts to an entirely new version of its STI Exit Stopper® that solves the problem of unauthorized exits and entries of fire doors is being offered by Safety Technology International Inc., of Waterford, Michigan.

Exit Stopper can be used as both an exit alarm to detect persons leaving through fire exits and now also as an enunciator to let you know someone has entered through the protected door. Further, you can easily select which of those two functions to use, the time length to trip delay and the type and length of warning siren or enunciator beeping.

#### **Security Latch 4000 Series**



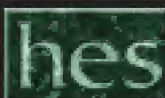
# medeco®

## HIGH SECURITY LOCKS

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'4000' Series offers the opportunity to add extra physical security to exits equipped with the new style panic hardware. The '4000' series can add extra physical security to just about any 'out' swinging door. As with Security Latch's original latches, the '4000' series can secure double doors with a center post, double doors without a center post, plus single left and right hand doors. All Security Latch units still have simple, safe and secure operation.

#### **Sentry Offers Lubricants**



DOW Corning Lubricants. 557 Silicone is truly a "dry film lubricant." Colorless, non-staining, and an extreme pressure lubricant, 557 Silicone is ideal for key cylinders, slides, cams, guides, bearings, tools and dies, drills and taps, and provides a protective coating to metal parts.

Pene-Lube penetrates rust, aiding in the disassembly of rusted parts, lubricating locks, hinges, cranks, tools, chains and cables. Pene-Lube stops squeaks, displaces water, and retards corrosion.

#### **Grand Master Z-Tool Car Opening System**



Slide Lock has the answer to your automotive lockout needs! Discover how to safely and easily open all models, both foreign and domestic, from the 50's to the 1997 showroom

models, with our newly updated Grand Master Z-Tool System. Professional, high-quality, up-to-date and guaranteed!

#### **Tri Star Door Armor**



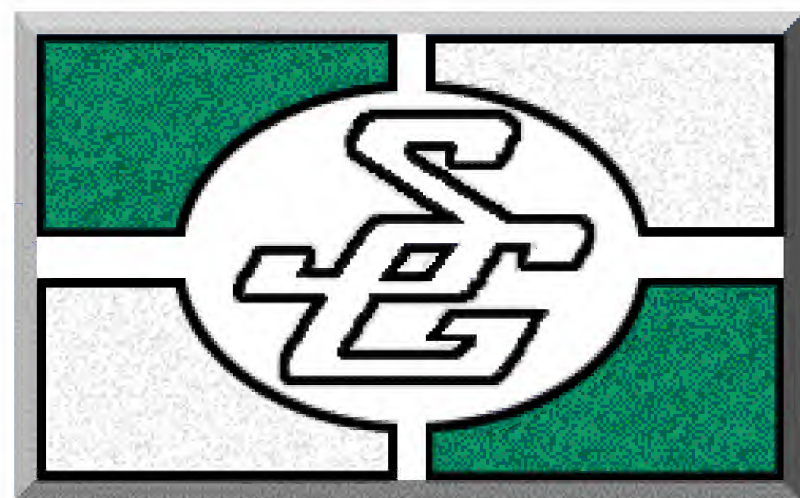
Door Armor is a highly effective product that protects doorknobs and deadbolts from vandalism, wrenching, prybars, and hammer attacks.

Fabricated from heavy 14 ga. steel, heliarc welded and finished with electrostatically applied powder paint. Fasteners and mounting instructions are included.

#### **Stroke Chime Combines Sight and Sound for Hearing Impaired**

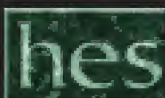


Trine Products Company is marketing a new wireless door chime that features a combination of bright, pulsing light and pleasant chime melodies. Developed to fulfill a need



**Make Sargent & Greenleaf's  
Comptronic locks your choice for  
electronic safe locking solutions.**

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of the 32% of the US Population that is hearing impaired, the new wireless chime helps them 'hear.' It has a range of up to 200 ft and a volume control; no wiring is required, and even has a built-in outlet to accommodate household appliances up to 5 amps.

#### Winfield MicroKey System



MicroKey is the new stand-alone, battery operated, access control door lock by Winfield. The MicroKey system is designed to support various applications including small office

buildings with a few users to large commercial complexes with thousands of users. MicroKey is cost-effective, easy to use, and offers solutions to security needs.

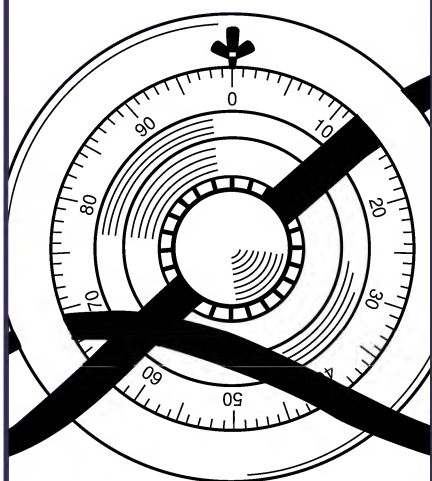
#### REDI-LINE Generates Mobile AC Power

Pacific Scientific's REDI-LINE generators provide quiet, convenient 120 and 230 bolt AC power for mobile and remote applications. Rugged and reliable, REDI-LINE products operate from vehicle batteries and convert DC



power to AC to run power tools, appliances and electrical equipment where commercial power is not conveniently available. **TRL**

**Lockmasters has a  
44 year history of  
training security  
professionals.**



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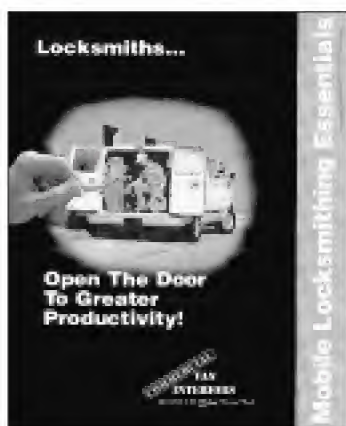
*The Innovation You  
Expect, with the  
Flexibility You Need!*

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# BUSINESS BRIEFS

## Commercial Van Interiors Expands



Commercial Van Interiors, with headquarters in St. Louis, MO, is pleased to announce the opening of its newest branch in Albuquerque, NM. At the same time, several branches have been expanded with larger showrooms, warehouse and installation areas.

Commercial Van Interiors is also pleased to offer literature on its van interior products geared specifically for the mobile locksmith. The "Mobile Locksmithing Essentials" literature describes and illustrates the "Anatomy of a Well Designed Vehicle" with color photos.

## All-Lock Promotion

All-Lock Company of Selma has announced the promotion of Russell Alsbrook to Vice President After-market Sales. Alsbrook has been employed with All-Lock most recently as National Sales Manager.

Over the past 36 years with All-Lock, Alsbrook has served in various positions including Manufacturing, Quality and Product Engineering Manager.



## Rutherford Controls Strike Selection

Rutherford Controls Inc. announces the greatest advance in the electric locking industry this decade. "FIRST STRIKE"™ is a windows (3.1 or 95) based program that helps the user select the correct electric strike for their specific application. Simply point and click to answer the various fields, such as: Frame Type; Lock Type; Voltage; etc. The program will also select



the best possible strike to use, show a picture of the product, and bring up all the sales specifications. This program is available FREE by contacting Rutherford Controls at 800-899-5625, or download it from their web site at: [www.rutherfordcontrols.com](http://www.rutherfordcontrols.com)

## La Gard Inc. Joins Computerized Security Systems

Computerized Security Systems and LaGard, Inc. have joined together to form one of the largest designer, producer and marketer of electronic locking systems in the world. This combined company is an operating unit of Masco Corporation a leading manufacturer of lock hardware and other building products.

LaGard provides products for safe access control, which is defined as locking devices for controlling access to containers such as safes,

automatic teller machines (ATMs), vaults, cabinetry and other containers.

## Monaco Lock Company

Monaco Lock Company is celebrating 30 years of service to the security industry with special promotions, raffles and a new catalog. They have become known for the superior manufacturers that they carry as well as their expert customer service and inventory. Now available is their volume 10 catalog called: "The Key to Security," featuring updated product information and new lines just introduced.

## RQ Associates Joins With Angiolaz

RQ Associates has reached an exclusive agreement with Angiolaz Inc. to sell several new products to the safe and locksmith industry. Some of the new products will be featured at the ALOA Show in Reno. RQ Associates specializes in unique innovative flexible lighting devices such as borescopes, fiberscopes and monitors for use in safe servicing and locksmithing.

## Locknetics 390 Series Powerlock



The Locknetics 390 series powerlock provides a multitude of options which will virtually fit any application. Standard features include 1650 lbs. holding force and the operating voltage is field selectable at 12 or 24 VDC. Modular circuit boards make it possible to upgrade to special options. Special options consist of a variety of

upgrades which include DSM-door status monitor and ATD-adjustable time delay. The MBS-magnetic bond sensor, must be ordered already installed in the magnet. For further information call: 1-800-348-2263.

## Dynalock Donates School Supplies

DynaLock Corp., has donated classroom training materials to the North Bennett Street School, Boston. In continuing its support of industry training efforts, DynaLock has provided the locksmith training program of the school with a full array of electric security locking products. DynaLock also provides the security industry with training instructors and seminar speakers.

## Akron Hardware's New Stocklist of Door Hardware

Akron Hardware Consultants has recently released a new, updated stocklist of more than 10,000 door hardware items. The stocklist includes the complete stock of products from Corbin Russwin, Yale, Rixson, Norton, Adams Rite, Locknetics, Architectural Control Systems, CCL, and Stanley, plus Akron Hardware's two newest lines, Ives and Arrow.



There are individual sections for each line and include product illustrations, stock numbers, descriptions, and list prices. For a copy of the three-ring binder with more than seventy pages of product information call: 1-800-321-9601. Fax: 1-800-328-6070. **TNL**



# Setting New Rekords

1. The new design of key machines includes style as well as functionality.



**S**ilca has introduced a new design in key duplication machines. Not only does this new introduction cut keys, but the new Rekord 2000 features some aesthetic styling which was first seen on the Silca Delta. When this new styling came out, "box" key machine manufacturers unofficially took notice of the new shape (see Photograph 1).

While styling is appealing, it's performance that counts. The Rekord 2000 has a dealer's list price of \$1125.00, putting it at the higher range of semi-automatic key duplicators. In this price range, we should be excited to see the performance of such a machine.

## FEATURES

The model tested was powered by a 110V, 1/4 hp motor, with a speed of 1680 rpm. Other voltages are available however. The 110V model easily operated with the power supplied by a 500W Redi-Line generator. On 110V AC power, a safety indicator lamp built into the switch is powered on when the machine is simply plugged into a wall outlet.

When the Rekord is plugged into the Redi-Line, with power off, the indicator will not draw enough current to start the Redi-Line, so the power indicator will not illuminate until the

machine's motor is turned on. While the safety feature is defeated, this is good, otherwise the machine would have to be unplugged from the service van's Redi-Line each time the duplicator would be turned off.

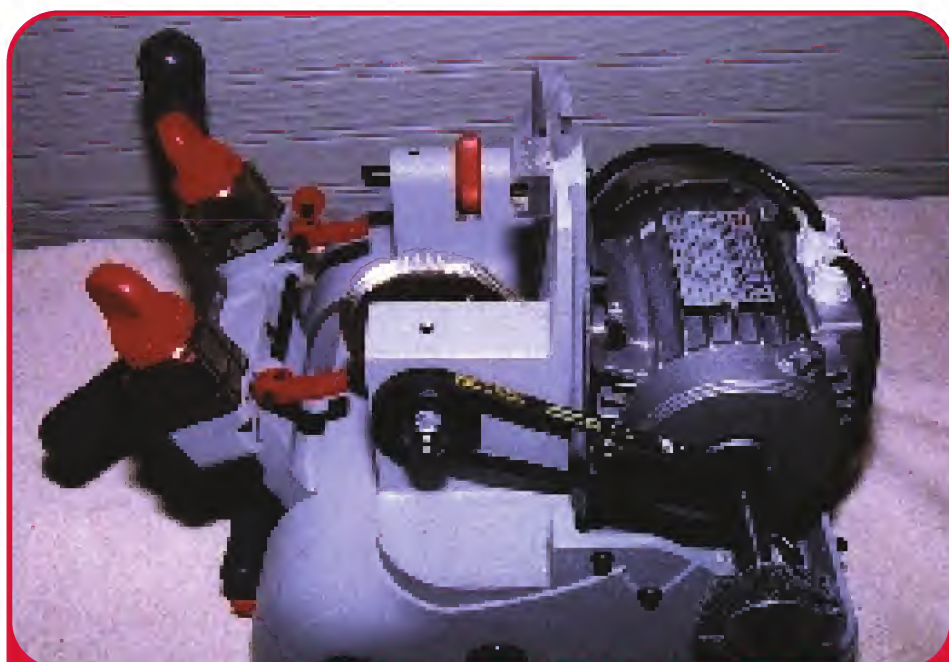
## CONSTRUCTION

Most of the machine is made of

metal, giving it its hefty weight. Weighing in at about 36-1/2 lbs., it is a heavy machine. There are three plastic guard covers which add safety and appearance to the machine as well. The first cover fits over the deburring wheel and snaps in place. Unfortunately, it inconveniently snaps out of place just as easily. During testing, we just left the deburring guard off. A second guard is held in place by three screws and covers the top portion of the cutter wheel and encapsulates the forward pulley and belt drive. The largest guard, held in place with four screws, covers the motor and rear pulley and drive (see Photograph 2).

## DESIGN

The first thing that we concern ourselves when we want to cut keys is the carriage and vises. The Rekord uses Silca's four way vises which secured the keyblanks very well. We had no problem with key blanks coming loose from the vise or chattering key blanks. The vises are mounted 3-1/2" away from each other, so the bow of the key blank would have to be 3-1/2" long to cause a problem in loading. Carriage cutting range is about 1-5/8", which translates to 1.625" (see Photograph 3). The four way jaws do not eliminate the need for shims and tip stops,



2. The guts of the machine — mostly a metal chassis which supports the 1/4 HP motor, cutter drive and deburring wheel.



### Continued from page 74

which are nicely stored in a drawer mounted underneath the key filing tray.

The jaw configurations are "A" flat with approximately .150" seat, for most cutting needs - including double sided Ford keys; "B" flat with approximately .110" seat for smaller keys; "C" bottom V groove; and "D" top V-groove.

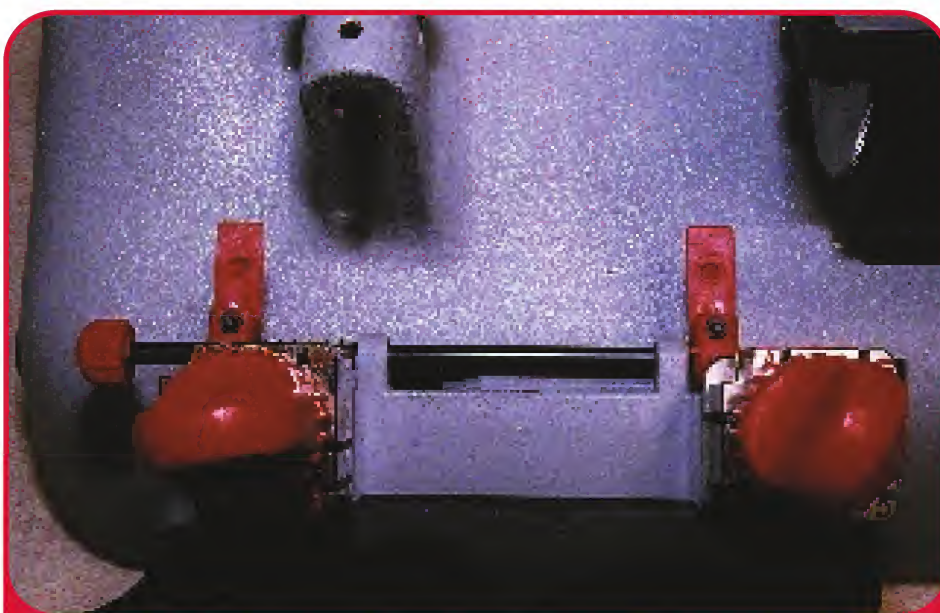
Key gauges flipped up and hold to the key and blank via spring tension while clamping the keys in the vise. These gauges did a fine job, but they are totally made of plastic. This is the first machine that I have used that had plastic key gauges and cannot predict how well they will perform long term. The one advantage with using plastic is, if they are accidentally thrown into the cutter, the gauges will not damage an expensive cutter wheel. I would however suggest stocking a spare set of key gauges for just such an emergency.

Once the key and blanks are loaded in the machine, gauges flipped back into the rest position and the machine turned on, the carriage handle felt comfortable and the carriage release button was in easy access to even my small hands (see *Photograph 4*). The carriage movement lever also felt comfortable and decisively moved the carriage through its travel.

The HSS cutter cut even the nickel silver original Schlage key blanks smoothly and quickly (see *Photograph 5*). The deburring brush was a virtual piece of optional equipment because the finished key was cut so smoothly (see *Photograph 6*).

### ACCURACY

What about accuracy? We tested



**3. The carriage, 4 way jaws, and shoulder gauges. Vise sides are labeled "A" through "D".**

the machine in several different ways. For accurate duplications the tracer and the cutter must match exactly, to accurately duplicate a key. Unfortunately, the more pointed the tracer, the sharper it is, and the more likely it will shave a small amount off the blade surface of the original key. The more rounded the tip of the tracer is, the less likely it will damage the original key, but the tracer will not reach deeply into the slopes and flats of the original key. The flats will become reduced, and the slopes less defined resulting in loss of duplicate key generations.

Spring tension from the carriage against the tracer will also effect accurate duplication. Light tension will reduce drag, but will increase the time the operator will need to accurately cut a duplicate key. Heavier spring tension will allow for faster duplication

because the added force will feed the uncut blank into the cutter faster and harder, but the increased force of the original key against the sharp tracer tip will scrape off more of the original key.

To test the amount of distortion to an original key, we took a brass SC1 key blank, measured it with a micrometer, loaded it into the tracer side vise, released the carriage so the blank scraped the tracer and moved the carriage across the entire length of the blade of the key back and forth. After 10 times, .001" was lost off of the key blank. The blank was replaced into the vise and tested for 40 more repetitions and re-measured. Only another .001" was lost, for a total of .002" loss at 50 repetitions.

### KEY GENERATIONS

A second check of accuracy is the



**4. Carriage release button is easy to reach and comfortable to use.**



**5. Large diameter cutter wheel provides a fast, smooth cut.**

**Continued from page 76**

key machine manufacturer's nightmare test — key generations. So many things can be out of whack — including operators technique — that I get the feeling manufacturers don't like to talk about key generations, even though locksmiths devote their lives to them.

For this test, we took a brand new Schlage A series (brass cylinder) lockset with original out of the box Schlage keys. We used original Schlage key blanks. After each key generation we tested the duplicate key in the lock, if it worked, that key was placed into the key machine and duplicated for a second generation key. The second generation key was then checked for operation. If it worked, it was then duplicated ... and so on...and so on... until we came up with a duplicate key that did not easily work the lock.

At generation 13, we got some sticking which a customer probably would excuse. At generation 17, we needed to do some jiggling to get the key to turn the cylinder. That's where we stopped this test. As an aside, key machine manufacturers and distributors are really pleased with getting 10 generations (see

Photograph 7).

Lastly we tested speed. There's no fair way to test speed because every operator is different. But we tested anyway. We loaded an original key into the tracer side vise, counted out 10 keyblanks and put them next to the machine. We started the stopwatch and duplicating. 104 seconds later, all 10 key blanks were sliced into operational Schlage lock keys. Key blank loading and unloading time were counted in the 104 seconds, and we used the vises as guides against the bottom shoulder of the key and blanks — a practice which should only be used when the vises are spaced accurately to the dimensions of the cutter and tracer and the original key is of the same manufacturer as the key



**6. The deburring brush almost seemed like an optional piece of equipment because keys were cut very cleanly. Unfortunately, the brush guard dislodged very easily, becoming an annoyance.**

blanks. Even when these conditions exist, it is acknowledged that this practice can introduce inaccuracies in duplication.

**CALIBRATIONS**

Depth calibration of the machine is

**Continued on page 80**



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### Continued from page 78

easily accomplished with the use of the centesimal ring. Each gradation is virtually .001" (0.025mm). Simply loosen the set screw holding the tracer point in place, adjust the centesimal ring. It clicks at each position to make counting easy. Adjusting keys are included with the machine, but if preferred, you can use two key blanks or an original key and its mal-copied duplicate.

The only major flaw with the owner's manual is that while it addressed Axis Calibration, AKA spacing calibration, there is no instructions included on how to properly perform this procedure. After dealing with Silca's tech support in the past, I'm sure that not only would the support staff send you information on Axis Calibration, they would patiently walk you through the procedure over the phone.

### PROS AND CONS

Overall, I liked the machine. Its heavy weight means once it's set in place, it doesn't move around on you. It's footprint at about 14-3/4" wide, 17-1/4" deep, and 11-3/4" high is perfect for a machine that holds a 1/4 hp motor which drives a 3-5/32" diameter cutter wheel.

My perception of four way jaws is that they quickly and easily hold a variety of keyblanks. I didn't like that it was still necessary to use shims for duplicating keys. Without shims, it was difficult to maintain the simultaneous accuracy in duplicating double sided foreign automotive keys as achieved with single sided Schlage keys. The alternative would be to recalibrate the machine each time styles of keys changed.

Bushings were placed between critical moving shafts and the machine body to resist calibration error common with age. These are found on the cutter wheel shaft and the carriage shaft (but not required on the carriage lever movement shaft).

I'd prefer to see some metal on the key gauges. I question how well they'll hold up with heavy use or in the back



7. The key on right is the first generation original key. The middle key is the second generation duplicate. The key on left is the seventeenth generation key which needed some jiggling to turn the cylinder.

of really hot service vans. However, if you accidentally cut into them, they certainly won't damage the cutter.

Cutting keys is easy on this machine and 17 generations of key duplication is great! Frankly, this is the bottom line which counts most next to price.

### Silca's Marker 2000

Silca has also introduced into the U.S. market the Marker 2000, which is

*Continued on page 82*

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Continued from page 80



8. The Marker 2000 is designed to engrave keys, cylinders medals or plaques.

an engraver. It is designed to engrave keys, cylinders and an number of other products such as medals and plaques. It will engrave any type of metal, including nickel silver, brass and steel.

To operate the Marker 2000 does require an IBM compatible keyboard to enter required information into the built-in processor. The unit features an illuminated four line 20 character display. The Marker 2000 can also be attached to a PC and run with Silca's software for Windows.

#### DIMENSIONS

The Marker 2000 is 8.66" wide, 12.6"

deep, 17.72" high and weighs 44 pounds. It is relatively large and very heavy to prevent base movement when engraving. The punch frequency of the Marker 2000 is 80 punches per second which punches on an X & Y axis. (North, South, East, West.)

#### OPERATION

To use the Marker 2000, there is a bit of programming and set-up that is first required. For those unfamiliar with computer operations, this can prove to be a bit challenging. Once the machine is initially set-up with information such as company name, address and phone number, the object to be engraved (key, cylinder, etc.) is inserted on the engraving base plate and the machine set to go. The unit punches in a fine dot matrix pattern at up to 80 punches per second.

#### CONCLUSION

With a price tag of about \$2500.00, the Marker 2000 is designed for the serious engravers doing large numbers of engravings. If you're that person, the Marker 2000 may be just what you've been looking for.

For more information on Silca Products call: 800-334-1381. [TNL](http://www.tnl.com)



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## Auto Opening Opening The



**A**side from minor exterior and interior changes, the Porsche 911 has remained virtually the same since 1987. All of the cars are equipped with power door locks, and accessing the linkage is fairly easy. The car can be opened a number of different ways with a number of different tools. We will give two opening examples here, one by High Tech and one by Tech-Train.

The first example will be given using High Tech's 1804CL tool (*see Illustration 1*).

First separate the glass from the weather-strip with the tool of your choice. Insert the 1804CL tool with the tip pointing towards the rear of the car. Lower the tool into the door and hook the bell crank near the rear edge of the vehicle. Watch the door lock button inside the car for

movement. When you hook the correct bell crank lever, pull up on the tool and the lock will open.

The second opening method will be given using Tech Train's TT-1000 tool (*see Illustration 2*).

Begin by wedging open the window at the rear. Insert an inspection light and locate the power door lock motor. The power door lock motor will be mounted low on the inboard edge of the door at the rear. Look for a white plastic connector at the end of the vertical linkage rod which extends upward from the power door lock motor.

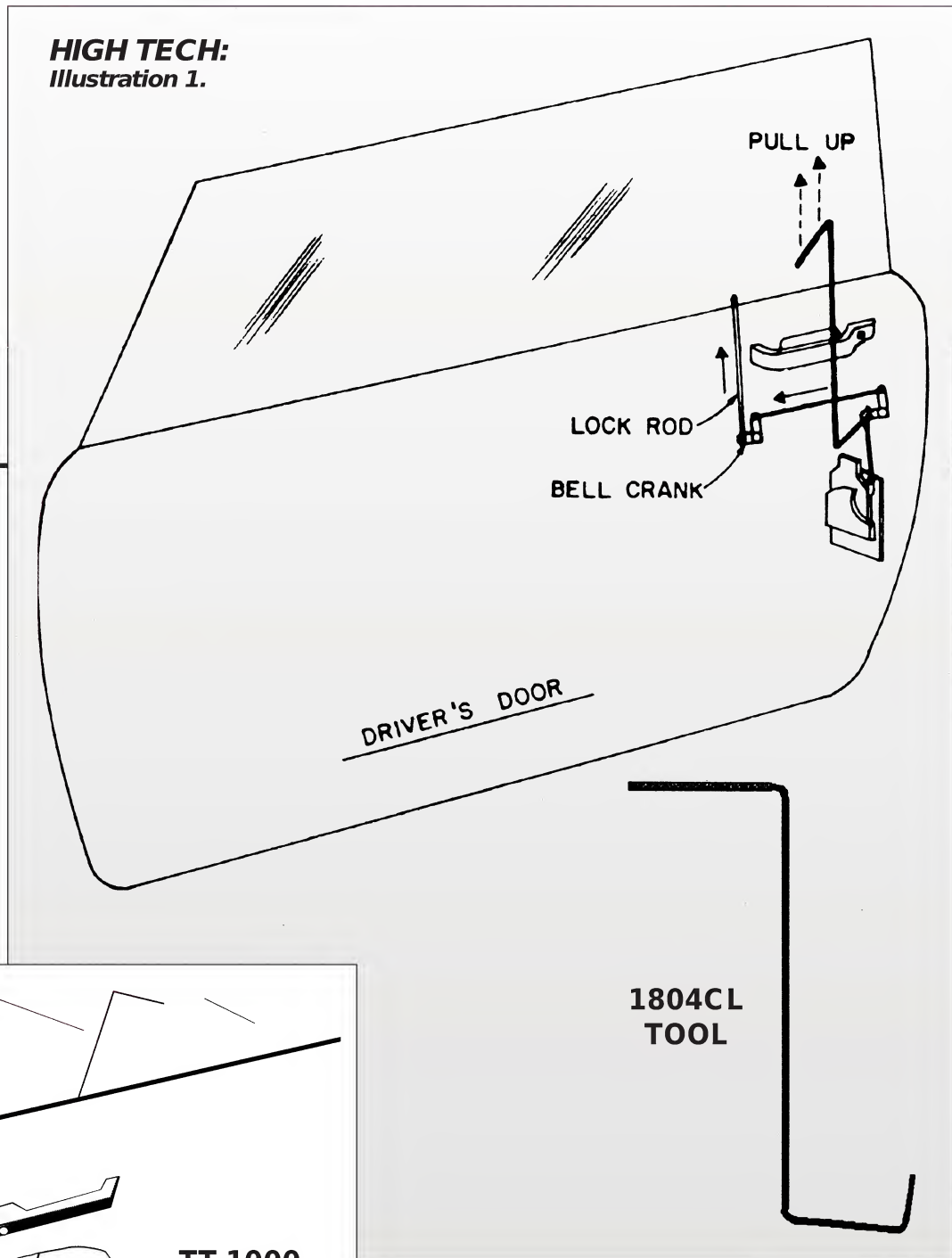
Insert the short end of the TT-1000 tool into the door and position the tip of the tool below the white plastic connector. Pull up on the power door lock linkage at the plastic connector to unlock the car.



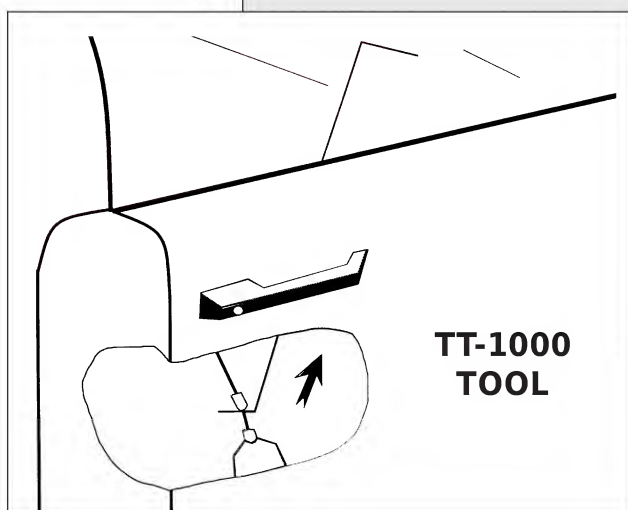


# 1996 Porsche 911!

**HIGH TECH:**  
*Illustration 1.*



**TECH-TRAIN:**



*Illustration 2.*





# Computer Software Products

*Industry related computer software such as: codes; master keying; key control; or inventory control; is becoming more of a necessity for every business owner. The speed, accuracy and convenience of computer generated information is hard to beat and wonderful to have available.*

*The following is a list of software manufacturers that provide such products for the locksmith. Many have a web address allowing you the ability to see on-line just what software the manufacturer provides. If not, contact by phone or fax for a list of software related products. Many manufacturers will even supply you with a sample of the software you desire to try before you buy.*

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Fax: 970-882-7228  
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103347.3165@COMPUSERVE.COM  
Web: [www.ourworld.compuserve.com/homepages/blkhawk](http://www.ourworld.compuserve.com/homepages/blkhawk)

## **ClearStar Security Network**

1140 University  
Berkeley, CA 94702  
510-841-7915  
E-mail: [INFO@CLEARSTAR.COM](mailto:INFO@CLEARSTAR.COM)  
Web: [www.clearstar.com](http://www.clearstar.com)

## **Corbin Russwin Architectural Hardware**

225 Epicopal Rd.  
Berlin, CT 06037  
203-225-7411  
Fax: 203-828-7266

## **DALAX, Inc./H&L Simon Co.**

1314 Huntington Dr.  
Richardson, TX 75080  
214-234-8009  
Fax: 214-234-0339

## **Data Logic Software Development**

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Fax: 817-571-1991  
E-mail: [DTLGCAFLASH.NET](mailto:DTLGCAFLASH.NET)  
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## **DLA Security Systems, Inc.**

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800-505-6636  
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# The **WHEELER** Side

A Sure Bet



by  
**Sara  
Probasco**

**"S**omehow, going to conventions just doesn't seem the same, since we streamlined our packing and quit taking along our coffee pot and all that other stuff," I said as I pulled a suitcase from the closet's top shelf and blew away the dust.

"Maybe not," Don replied, "but it sure is nice, not having to pay the airline's overweight-luggage fees any more."

I ignored him.

"We've had some interesting convention trips over the years, haven't we?"

"Yeah," Don grinned. "Remember when we were assigned to a room already occupied by another couple? Boy, was that guy upset when I barged in on him in the shower."

"And what about the time the hotel fire alarm system went off while I was waiting for the elevator on the 34th floor?"

"Good thing it was a false alarm," Don said.

"I'll say. I was not excited about the idea of dashing down 34 flights of stairs in a burning building. All I could think of was *The Towering Inferno*." I tossed my blow dryer and shampoo into the bag. "What got me was, nobody else seemed to notice. Even the man laying carpet in the elevator corridor never looked up. Sirens screaming, warning lights flashing, and he just kept right on working."

"He didn't look like that pink rabbit with the big drum, did he?" Don asked, grinning.

"Thanks for reminding me," I said, reaching for my portable tape recorder and batteries. I nestled them in between a box of business cards and some note pads.

"I remember another convention when you came out of our room and ran smack into an FBI bomb squad forcing their way into the room next to ours," Don said.

"That was scary. When I asked

what was going on, one of the men steered me back into our room and told me to stay there. Someone was ill next door, he said, and they were having to force the door open to get to them."

"A likely story!" Don retorted.

The part that had scared me most, Don hadn't mentioned. "If you remember, we had been assigned that room, at first. Just as we were unpacking they had moved us next door, saying there was something wrong with the bathroom plumbing." I tossed in a large bottle of aspirin and some Tums.

"I had forgotten that," Don said. "Of course, if a bomb had gone off, I doubt it would have mattered a whole lot whether we were in the room with it or right next door."

"You may be right."

We both grew quiet, thinking about this.

"Where was that?" I finally asked.

"I'm not sure. Wherever it was, they were celebrating Bastille Day, with fireworks at night. Funny, isn't it, how all the convention hotels begin to look alike, after a while," Don mused.

"Well, this year should be different. We've never been to Reno before. How much 'fun' money are we going to take?"

"I don't know, but I'm not planning on spending a lot of time in the casinos," Don said.

"Oh? Why not?"

"Last time I did that, when we were in Vegas, I decided I have about as

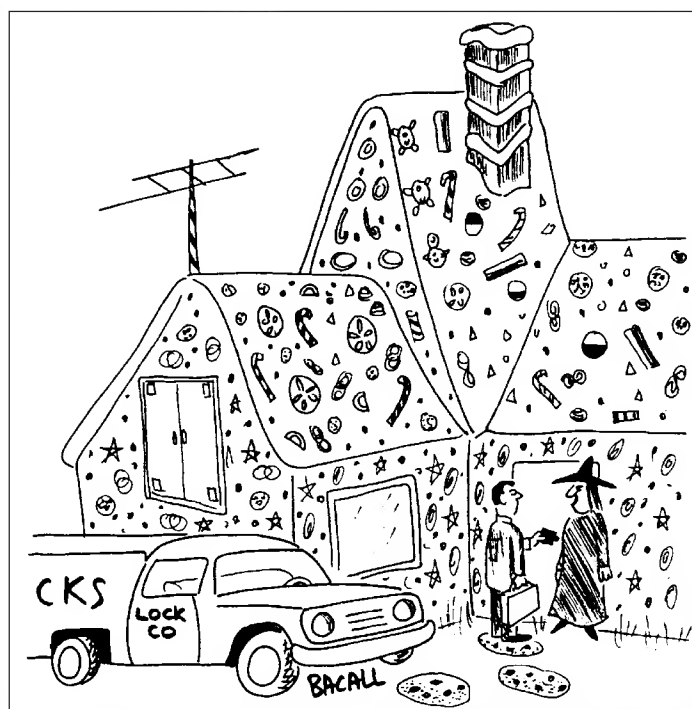
good a chance winning something if I just throw the cash out the window. I guess I'm not much of a gambler."

"You've been in business for yourself practically all your life, yet you say you're not a gambler? That's rich." I couldn't suppress a chuckle.

**"B**eing in business for yourself isn't all that risky. Not if you know what you're doing."

"Are you kidding? All the middle-of-the-night calls you take to who knows where. And what about the feuding couples who fight over who gets the house while you're trying to rekey the place? It's a wonder you're still in one piece." "Awe," Don tried to rationalize, "It hasn't been all that bad."

"Then there's that night you followed the lady out to the country to repossess the eighteen-wheeler one of her drivers had absconded with. You remember, the police were watching the house while you made her a set of keys. It wasn't until later they told you the man inside had a gun," I said.



*"Do you have the same lock in chocolate?"*

"Oh, that," Don said.

"How much riskier can it get?" I asked.

"I thought you were talking about financial risk."

"You want to talk financial risk? Figure up the hours each month I spent on the phone and at the County Attorney's office filing on bad checks and theft of services charges. You've had to collect from the uncollectibles trying to give you the slip, track down rubber-check writers in some very unusual places, and we could have opened a pawn shop the first couple of years, with all the 'collateral' you took in. I also seem to remember being threatened with a lawsuit over a defective safe."

Don muttered something unintelligible under his breath.

"And in a slightly different vein, there's been a time or two you've overloaded yourself on some new inventory items like those Widgets. Remember, you had a gut feeling they would make a million for us overnight? Now, if that's not gambling, what is?"

**"Y**ou know, it's funny you should mention those. Just the other day, I was wondering what ever became of them."

"They are in boxes in the back room. Dozens of boxes. Stacked halfway to the ceiling," I said.

"What in the world are you doing?" Don asked, changing the subject. He was staring at my suitcase. By now it was crammed full.

"I'm packing for the convention trip, what do you think?"

"But there aren't any clothes in there."

"Oh, they go in the other bag. This one is just for the odds and ends I'll need," I said.

Don spun around and left the room. When he returned, he was carrying a large hammer.

"What are you doing with that?" I asked, cowering behind my bulging suitcase.

"I'm going to raid my piggy bank," he said. "I figure I may as well try for a jackpot in Reno. From the looks of things, we're going to need it. Besides, what's a little added risk when you're already neck-deep in the locksmith business!" **TNL**



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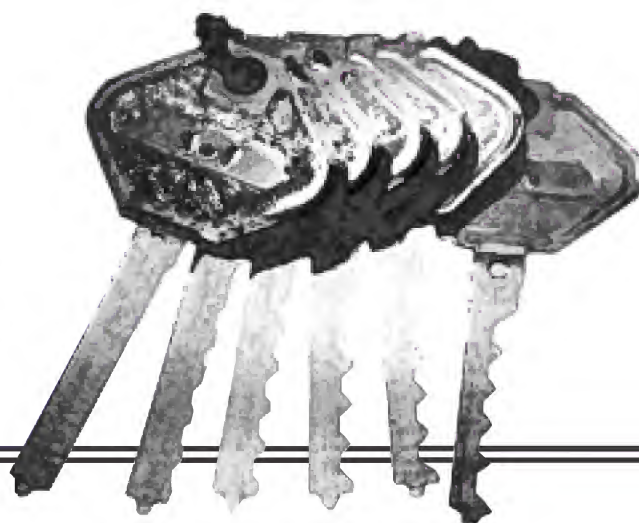
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# MAXIS Security

by Jake Jakubowski



If stiff start-up and high on-going product costs have kept you out of the key control, or restricted keyway market, it is time for you to re-evaluate your position by taking a look at the key control program offered by MAXIS.

The MAXIS patented key control system is effective, economical and user-friendly. It will lend itself well to small and mid-sized businesses, as well as residential applications where a key

control program is desired. The MAXIS fills a void where budgetary considerations would preclude utilizing more expensive key control measures with greater name recognition. MAXIS has a price point that will make it attractive to the homeowner.

Initially, the most striking feature of the MAXIS is probably the visual impact of the unique round keyway, (see Photograph 1). The attention grabbing keyway will help you capture a prospective customers interest when you show them one of the cylinders or keys. In sales parlance, you can use the round keyway as an "ice breaker."

When a customer asks about "a key that can't be duplicated," showing them a MAXIS cylinder or key will definitely get their attention. The price point (and retro-fit capabilities) of MAXIS should convince them that they have found an affordable key control system. And, when you show the customer that the

key can be inserted in the keyway in any position to lock or unlock the lock (no more fumbling around on dark nights or when they're in a hurry), they'll know that they have found a truly convenient key control system. This can be a terrific benefit for the elderly.

However, you - as a locksmith - can't truly appreciate the distinctiveness of the round keyway and sleeved key until you recognize that this lock is not a rotating disk lock but, a pin tumbler lock. Illustration A, details the workings of the MAXIS cylinder. In that illustration you can see the special bottom pins that make it possible to utilize pin tumblers in a non-paracentric keyway.

MAXIS has also designed versatility into their key control system by giving you retro-fit capabilities with: Schlage key-in-knobs; "D" series lever handles;

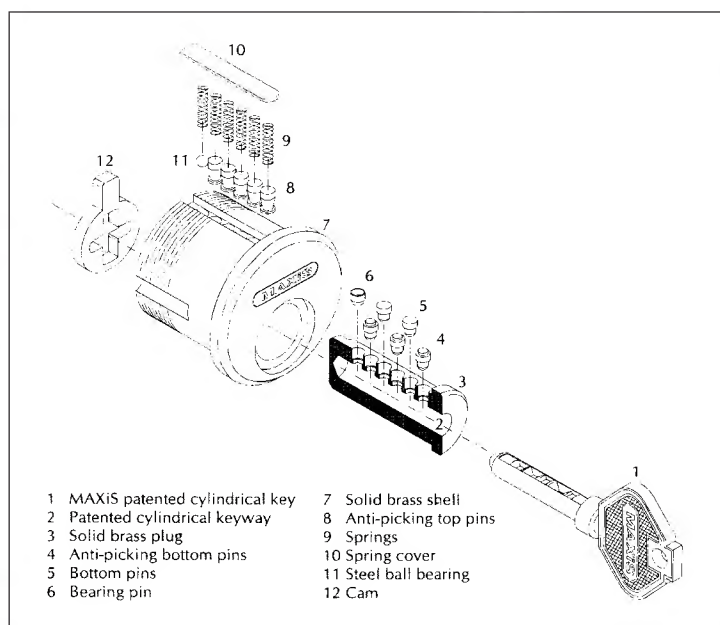
*Continued on page 106*



**1. The most striking feature of the MAXIS is probably the visual impact of the unique round keyway.**



**2. A close-up of a MAXIS cylinder in a Schlage A series, Orbit knobset.**



**Illustration A.**  
**The workings of the MAXIS cylinder. You can see the special bottom pins that make it possible to utilize pin tumblers in a non-paracentric keyway.**

Continued from page 104



**3. The MAXiS basic key control cylinder line-up. A key-in-knob cylinder, a 1-1/8" mortise cylinder and a rim cylinder.**



**4. Various tail pieces for the key-in-knob cylinders.**

"B" series deadbolts; Weiser deadbolts; and some Arrow key-in-knob applications. *Photograph 2*, is a close-up of a MAXiS cylinder in a Schlage A series, Orbit knobset.

From left to right in *Photograph 3*, is the MAXiS basic key control cylinder line-up. A key-in-knob cylinder, a 1-1/8" mortise cylinder and a rim cylinder. With various tail pieces for the key-in-knob cylinder, you can accomplish any number of retrofits, (see *Photograph 4*).

This retrofit ability can allow you to utilize current hardware (especially in residential applications) by simply replacing the cylinder to save your prospective customer a substantial amount of money. You can also use the MAXiS mortise cylinder in conjunction with Lori's 4500 series deadbolt.

*Photograph 5*, shows a MAXiS mortise cylinder



**5. A MAXiS mortise cylinder with a cylinder guard ring installed in an Adams Rite 1850MS deadlock.**

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6. The MAXiS key is a "sleeved" key. That is, the key actually consists of three parts.



with a cylinder guard ring installed in an Adams Rite 1850M S deadlock on a narrow stile glass door. The cylinder, ring, pinning and one key cost the customer under sixty bucks. Any way you cut it, that's cheap key control.

If you look at Photograph 6, you will see that the MAXiS key is a "sleeved" key. That is, the key actually consists of three parts: The five pin key blank; the key sleeve; and the locking ring. In order to generate a key for this system, you need to use the MAXiS

Code Key Set, (see Photograph 7). Simply use these "space & depth" keys to originate your first key by cutting the key on your regular duplicating machine.

To "assemble" your key, you need to use the MAXiS D/A tool (see photograph 8) as shown in the following step-by-step directions.

1. Cut key to code desired, using space & depth keys, (see Photograph 9).



7. To generate a key for this system, you need to use the MAXiS Code Key Set.



8. To "assemble" your key, you need to use the MAXiS D/A tool.

2. Place sleeve over key and locking ring over tip of sleeve, (see Photograph 10).

**Continued on page 110**



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*Continued from page 107*

3. Insert key assembly into D/A tool with the head up as shown, (see Photograph 11).

4. Place Setting Tool over locking ring and strike sharply with hammer,

(see Photograph 12). This sets locking ring down over sleeve as shown in Photograph 13.

5. Photograph 14, is of the completed key.

Both the space and depth keys and the D/A Tool are included in your initial start-up package.

To duplicate a key, you have to take the locking ring and sleeve off of



**9. To originate a key, cut key to code desired, using space & depth keys.**



**10. Place sleeve over key and locking ring over tip of sleeve.**



**11. Insert key assembly into D/A tool with the head up.**

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**12. Place Setting Tool over locking ring and strike sharply with hammer.**



the key by placing the key in the D/A Tool with the head down as shown in Photograph 15. Slip the other half of the tool over the end of the key, (see Photograph 16). Strike it with a hammer causing the locking ring to move up the sleeve as shown in Photograph 17. This will allow you to



**13. The locking ring is set down over sleeve as shown.**

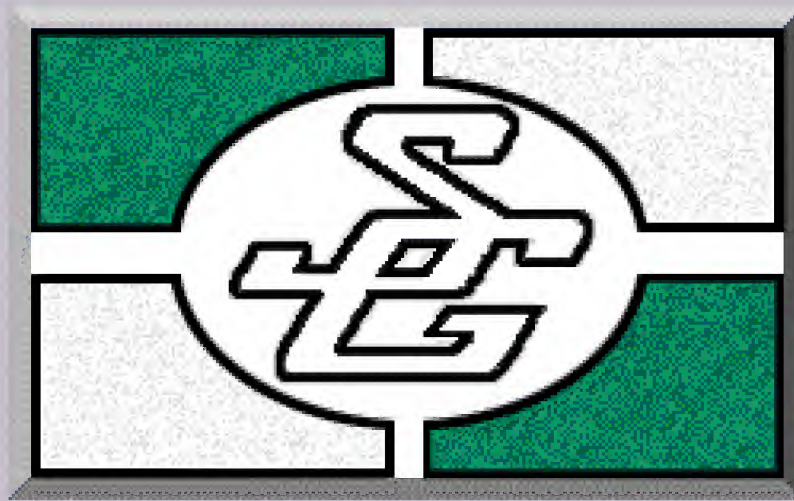
remove it from the key. After duplicating the key, re-assemble the customers key as shown above and attach a sleeve and locking ring to the new key.

Pinning the MAXIS cylinder is no more difficult than pinning any standard lock cylinder. There are no complicated discs, wafers, sidebars, or lift and rotate pins to keep track of, simply insert the special bottom pins from the MAXIS pinning kit, (see Photograph 18). Accessories are supplied with your initial start up kit.

You can master key MAXIS cylinders just like any other conventional cylinder. Once complete, the plug is ready to install in the cylinder (see Photograph 19).

The indentation that you see just past the number five chamber, is for a detent ball that clicks into place when the plug is rotated to its normal upright position.

The MAXIS pinning kit contains all the springs, pins, detents, sleeves and locking rings that you need to rekey and duplicate keys for any MAXIS cylinder. And, more importantly, new cylinders, replacement parts and supplies are available from MAXIS' California distribution warehouse, so there is no long waiting period for product from an off-shore source to reach you.



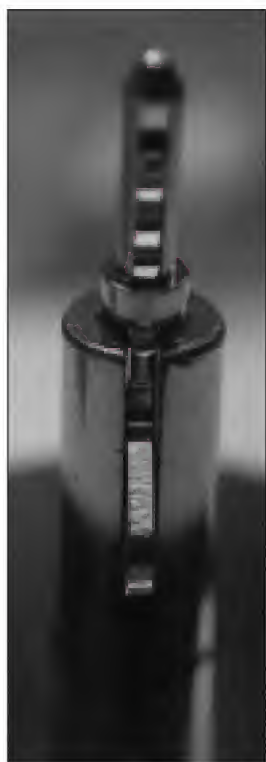
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**14. The completed key.**



**17. Strike it with a hammer causing the locking ring to move up the sleeve.**



**15. To duplicate a key, you have to take the locking ring and sleeve off of the key by placing the key in the D/ A Tool.**



**16. Slip the other half of the tool over the end of the key.**



**18. Insert the special bottom pins from the MAXiS pinning kit. Accessories are supplied with your initial start up kit.**



**19. You can master key MAXiS cylinders just like any other conventional cylinder. Once complete, the plug is ready to install in the cylinder.**



The demand for key control systems and products is growing every day. And, the demand for key control is now reaching to the residential market. Today, many home owners and small business proprietors with only a few employees want more key security than "DO NOT DUPLICATE" stamped on their keys. The solution for them is an economical, yet effective, key control system.

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are willing, or able, to spend. That's where a product like MAXiS comes in.

MAXiS puts key control within the reach of more locksmiths than ever before. With an up front cost of under \$600.00, You can get into the key control business and tap a budding market that is growing bigger everyday. A market that is not being addressed by the more sophisticated key control systems.

MAXiS is a key control system that is economical, effective, convenient and is readily marketable to many of your current customers. It is a key

control system that will appeal to a broader segment of the small business market because of its price point. And, MAXiS is a key control system that will definitely do what you would want any keying system that you bought to do: Make you money.

For more information on MAXiS call: Harry Wong, Marketing Manager at 604-434-LOCK. Or write MAXiS SECURITY LOCKS, INC. at 120B-3773 Still Creek Ave., Burnaby, BC Canada V5C 4E2. Tell Harry, that Jake sent you. Y'all heah what I'm sayin', now? **TNL**





# Media Relations

by Carol Brzozowski-Gardner

**W**hy is it that every time you open your home town paper, it seems like the same businesses always get the ink? That's because - pardon the slang - they're the squeakiest wheels. They're the folks who know how to promote themselves in the media.

These same individuals or business representatives, most likely developed that relationship by establishing themselves as experts in the field. They also probably have, over the years, flooded the local editors' desks with press releases about their business. They take advantage of every opportunity to promote their business or themselves.

Well, there is no need for you to be shy. You can do this, too. Remember, if you don't toot your horn, nobody else will, until they know something about you. Here are some tips on how you can do just that.

## **Media Marketing**

Pinpoint a person in your business who can be a media contact. Preferably someone with good communication skills. It can be someone experienced in public relations or even yourself. If you don't have time to do this and there is no one in your organization who can handle this responsibility, consider hiring a freelance marketing or public relations person. A freelancer is more likely to work less expensively than a public relations firm. You can find freelancers through local writers organizations.

## **Meet The Press**

Make sure the media contact meets with the local news reporter and gets to know him, or her, as a person. More understanding is achieved when people get to know each other on a personal level, face-to-face.

When meeting the press, it is crucial to remember that whether your conversation with a reporter is an interview, a background talk, or a chat about each other, know that you are always considered to be "on the record." That reporter is most likely jotting down everything you are saying, so choose your words wisely.

Should you not want what you're saying reported in the next day's paper, make it clear you're comments are "off the record."

## **Promote Yourself**

Promote even your smallest events, such as your day-to-day activities. Many newspapers have separate business or community sections for "small news items." Space in these sections is there for the taking. Don't underestimate the power of the media. People do read these columns and you can gain more exposure as a result (without even having to pay for an advertisement).

## **Educate The Press**

Announce upcoming days or events which tie in to your business, and write a press release explaining them.

Don't assume the reporter knows everything about your particular industry. Explain terminology, however elementary it may seem to you. This sets you up as a local expert, and may prompt a call from the media and get you quoted.

## **Offer Your Services**

If you live or work in a town that has a small newspaper, offer to write a column highlighting your expertise - maybe a question and answer column (these are becoming more popular). You may not get paid much for the job, but the exposure is invaluable for business.

## **Be Accessible**

Be available for the important stories, even ones that are sensitive and would rather not see in print. Make sure the local reporter has a number where you or your media contact can be reached at day or night. Many reporters work well beyond the dinner hour. It is better to have your dinner disturbed by a phone call, than to open the paper the next morning and see an incomplete story which could have been more clear with your input.

## **Send Press Releases**

Know how to write an effective press release. Every press release should be typed, double-spaced and include the following elements: who, what, where, when, why, and how. Include phone numbers for contacts



and make sure to get your press release in well ahead of the time your event is taking place.

### **Never Give Up**

Don't be put off if something you send in is not published. Keep sending the press releases. It's a game of numbers and you're bound to "win" some column inches at some point.

### **Invite The Press To Speak**

Invite a local news writer to speak at an association meeting, a seminar, or conference, about how the news is made, and what provisions constitute a story. Unveiling the mystique about the media can do nothing but improve your relationship. This is also a great way to make a contact in the media.

### **Stand Up And Be Heard**

The newspaper is the pulse of the community; don't refrain from getting yourself to be a beat in that pulse. Organize letter-to-the-editor campaigns to praise and protest certain types of coverage. This lets editors know you're alive and you're there to stand up and be counted. One of the most important sections of the newspaper is the sports section because it receives so much "feedback."

### **Mention Just The Facts**

Avoid broad-based criticism of the media. Focus your comments instead on the facts, and with those facts, show how fairness can be achieved. Too many people blast the media with generalizations, just as the media can generalize about topics it covers. Nothing speaks the truth louder than the facts.

As a former newspaper reporter and now a freelance writer, I've always believed people under-utilize the opportunities local media outlets afford. The people whose news items made it into my "people" columns and whose quotes made it into my stories, made themselves known through phone, mail and personal contact.

If done in a tasteful way (don't come off looking like a self-aggrandizing person) and by following these steps, you too can increase your business growth through media exposure. **TRL**



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I was sitting in my shop relaxing and doing nothing — I wish — when I was paid a visit from an old friend Jim. Jim works for a major company in a responsible position and Jim had a problem. He explained to me that some valuable computer equipment had disappeared from a locked office. There were only two keys to the lock on the door and his insurance company would not settle the claim because, to put it bluntly, they suspected him of having removed the equipment.

Jim was quite distraught, not only because of the financial loss he had suffered, but also because of the unstated suspicion he felt he was under by senior management. As Jim and I talked, I asked him if the police had investigated the burglary and he told me that they had. When I began to question him about professional examination of the lock and locking devices, he replied that the police had only checked for signs of forced entry.

One of my major pet peeves is the lack of knowledge on the part of law enforcement agencies as to the forensic examination of locks and security devices. Unfortunately, this is a field which is sadly lacking in trained, professional investigators. In most cases the field investigator has little knowledge of forensics as a science and no understanding of locksmithing as a field of expertise.

As locksmiths, we too are not always sufficiently trained to recognize the signs of what I call "covert" entry versus "forced entry." Covert entry is when the perpetrator has entered a locked or controlled area without leaving any obvious signs of entrance, and in fact has left signs that can only be detected by a trained forensics person. Forced entry to most police officers is when someone has kicked the door in by using their size 12 boots.

I believe we need to better prepare ourselves by learning as much as we can about the forensic locksmithing field or "investigative locksmithing" if you prefer that term. We can then sell our services to various law enforcement agencies and to insurance companies and expand our business. If you have never done insurance work, I can tell you they pay well, and one job generally leads to another.

# The Forensic Locksmith Strikes Again

by Don Shiles



**1 I found a couple of suspicious looking scratches and some definite indentations around the edge of the cylinder.**

As Jim finished telling me his tale of woe, I felt sorry for him, not only as a friend but as a person who felt he had nowhere to turn to resolve his problem. I explained to him the principles behind forensic locksmithing and offered to conduct an examination of the area in question. We made an appointment for the following morning and he left a little happier than when he arrived. I told him not to get his hopes too high, because I couldn't guarantee I would find anything. However, it wouldn't hurt to look.

Early the next morning we met for breakfast and then he took me to the building where the loss had occurred. Quite simply, it was a relatively small office in a modern building. There were no windows which could be opened and only two doors through which a person could gain entrance. The back door was an emergency exit

furnished with a push bar panic device and no external lock. This door was an emergency exit only.



**2. There were definite signs of a wrenching attack on this cylinder.**





**3. There were marks left by what I believe to be either a pair of channel locks or vice grips.**

A quick visual check revealed no obvious signs of bypass to this door, such as drilled holes through which someone could have inserted a wire or string and opened the exit push-bar device. The hinges had not been removed as evidenced by the undamaged paint on them and there were no "jimmy" or shove knife marks around the perimeter of the door. I even used a mirror to check the underside of the door for marks left by an "under-the-door type tool." After satisfying myself that no-one could have entered through that door using any technique of which I was aware, I then went to the front door.

I saved the most obvious entrance for last for two reasons; first, I didn't know what kind of examination the police might have conducted and the marks they might have made, second, I wanted to be sure I had eliminated all other possibilities first.

**T**he first thing I examined was the door and jamb. I looked for pry marks around the strike. There were none. I examined the keyway of the lock for pick, rake or other by-pass tool marks. The lock was clean. Without disassembling the lock I couldn't be 100% certain there had been no attack, but I decided to save that for the last resort.

I checked the door jamb and the joints at the juncture where the vertical portion of the jamb met the top cross-piece, in an attempt to determine if a "Jamb Spreader" had been used. There were absolutely no marks or indications of any kind that

anyone had opened or attempted to open the door in that manner. The door hinges were mounted on the inside — the way they should be — so that avenue of approach was out.

I finally examined the entire face of the mortise cylinder lock using a hand-held microscope and found a couple of suspicious looking scratches and some definite indentations around the edge of the cylinder (see *Photograph 1*).

**A**fter photographing the face of the cylinder, I then removed the cylinder from the door and examined

it closely on all sides. As you can see in *Photograph 2*, there were definite signs of a wrenching attack on this cylinder. At two different places around the rim there were marks left by what I believe to be either a pair of channel locks or vice grips (see *Photograph 3*). If a suspect with tools was ever found, we could do a comparison to determine if any of those tools matched the marks.

As further proof that an unauthorized attack had been made, I checked the sides of the cylinder for marks left by the threads of the



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cylinder being forced past the set screw. As you can see in *Photograph 4*, there are definite indications that someone had forced the lock open.

I told Jim that there was sufficient indication of a break-in for me to feel comfortable in putting that into a report. However, first we had to contact the building manager



**4. There are definite indications that someone had forced the lock open.**



to determine if there had been any locksmith work done on that particular lock in the recent past. I could tell it was a recent attack because the brass, which had been scratched, had not tarnished or oxidized in any manner. After determining that there had been no known service performed on that lock, we made an appointment to see Jim's boss.

Jim and I went to his office and I made a presentation explaining what I had done and what the results indicated and showed him the photographs. In a short period of time, Jim received an apology for the unspoken suspicion. The fact remains that there was sufficient evidence to prove a break-in had occurred and one done by a relatively competent thief, not a "smash and grab" guy. This company has been introduced to the concept of forensic locksmithing and is now aware of some of the things that can be done.

While this case did not result in the capturing of a "bad guy" it did remove suspicion from one of the

"good guys." If the police had investigated as I did, found the evidence and understood its significance, they would have initiated an investigation and possibly caught the person who had broken in.

You and I have knowledge and understanding of locks, their weaknesses and the by-pass techniques which can be used against them. What we have to do is learn to recognize the indications that these techniques leave behind, replicate them in a laboratory situation and establish our credentials so we can legally testify in courts of law about what we have found. There is a need for our services — we are the only ones who can perform them — so why aren't we making use of these skills and earning money from helping the good guys and beating the bad ones. After all, isn't that the main purpose of our existence? Study, grow, expand and live a better life. **TL**



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# Open Your EYES!

by George Hall

In a past article I discussed the misconceptions that all salespeople are pushy and obnoxious people trying to sell things people don't want or need. I showed how a locksmith can "sell" merely by asking questions to establish the needs or wants and then offer solutions for the customer to choose from.

This month I would like to consider the way you present yourself to the customer. Wait! I am not going to tell you to improve your dress and wash your truck. I believe all that, but I am concerned about the first impression you give by the layout of your shop or truck.

The best way to look at this issue is to try to approach your business as a first time customer would. The key here is that you have to really work hard at being objective. You may be more successful if you ask a friend who is unfamiliar with your business or locksmithing in general. When you walk in your shop or arrive in your service vehicle, you are looking through eyes that are clouded and biased. Try to imagine that you are in need of some product or service which you know nothing about.

No one example will work for everyone, but here is one, an old style brake shop. In this old style brake shop the waiting area is small, cramped, with some mismatched dirty kitchen chairs, some tattered out of date magazines and most important no employee in sight!

When someone walks into a "new generation" brake shop, they are "greeted" by an attractive waiting and showroom area. First off they are met with a friendly "How may I help you" or if the employee is with another customer, he will find his eye drawn to displays and signs.

These displays and signs will lead him through some information about brake systems and how they work and what is involved in a "brake job." Probably there will be some hands-on displays that compare either worn and new brake parts or perhaps good-better-best comparisons of parts. There will be some literature available, or additional signs that explain how to tell when you need brake work, what causes those symptoms, and how to maintain brake systems.

*We all judge one another in some way or fashion. The most impressionable judgments we make are usually on the first impression.*

If you are saying that this is a poor comparison, I will concede it is not perfect, but these brake installers must deal with a great deal of competition and the same do-it-yourself problems you do. Also, rarely is a brake job simple, just like a lock job.

When the employee begins talking to the customer, he will take notes as he asks questions bearing on a need. "How may I help you?" "What type of car do you have?" "What symptoms caused you to come in?" "Do you have a time frame in mind?"

Eventually the technicians will examine the car and write up a estimate on the same form that the notes had been written on.

While the estimate is written up and the work is done, the customer is directed to a clean waiting area where CURRENT magazines, and newspapers are available as well as coffee and soft drinks. The area is also stocked with some additional literature on other services available and displays explaining these services.

Okay, we are not in the brake business, we are in the lock business, but, both business are SERVICE business's and both are customer's business's. Surely we have all heard that this is the era of CUSTOMER SERVICE and that people are looking for SERVICE and are willing to pay for it. It would be hard to know that we valued our customers by visiting some of the shops in our industry.

Let's go back to looking at your shop as a new customer. What does the customer see as he walks or drives up. Is it a clean attractive image? Are the hours posted so a customer coming after hours knows when to come back.

Are the signs attractive and current? Many shops have a sign saying something like "As of Jan. 1st, 1983 minimum charge is \$5.00" or worse "NO GUARANTEE ON KEYS CUT BY CODE" scrawled in red letters 10 inches high. This shows a lack of updating your signs and seems to say that you operate on a policy of "Buyer Beware." Most customers will not even know what a code key is! In order to be known for your customer service you will need to explain your policies every time to each customer that it applies to.

Take a good look at your shop or truck through new eyes and let customers know you are willing to be helpful and want their business. **RL**



# S. Parker Cylindrical Leversets



by **Sal Dulcamaro**

**S.** Parker Hardware produces a variety of grade 2 cylindrical leversets. They are available in the following functions: passage; privacy; entry; storeroom; classroom; and dummy. All are available in four

different finishes: polished brass; oil rubbed bronze; dull chrome and polished chrome.

The grade 2 leversets can be installed in doors from 1-3/8" to 1-3/4" thick, and are available in either 2-3/8" or 2-3/4" latch backsets. The 2-3/4" backset latch is UL listed. The keyed locksets come standard with a Schlage keyway compatible cylinder. The cylinders are drilled for six pins but are keyed to five pins.

The entry lock key-in-lever set is also available in an IC version. It will accept most standard 6 or 7 pin Best compatible cores. The installation shown in this article will be with the IC lockset, but the procedure is nearly identical for all the other versions of the grade 2 leversets.

## Installation Procedures:

*Photograph 1*, shows the parts for the S. Parker entry lock and a portable lock mount. Like many other brands of leversets, the S. Parker lock requires a modification to a standard door prep.

The standard cross bore hole diameter is 2-1/8". The S. Parker latch will fit with a 7/8" or 1" diameter edge bore hole. For wood doors, you will need to make 5/32" notches at roughly 3 o'clock and 9 o'clock of the cross bore hole. Most commercial steel doors already come prepped with notches there. If you have a steel door without those notches, you may need



**1. The parts for the S. Parker entry lock and a portable lock mount.**

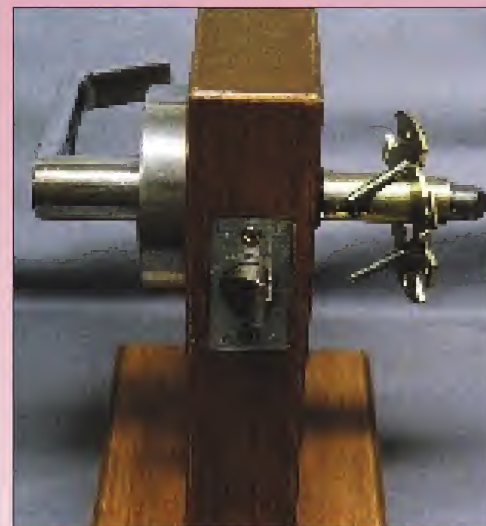
to file them yourself with a round file.

With many other brand leversets, you will need to drill two additional mounting holes. The S. Parker installation instruction sheet refers to those two holes as body securing stud holes. Those mounting holes should be 5/16" in diameter and located at roughly 12 o'clock and 6 o'clock, (in relation to a clock face).

If you are replacing a leverset that was already installed in a door with similar mounting holes already drilled at 12 o'clock and 6 o'clock, double check the spacing. You will find installation variations from brand to brand. Even with the same relative position



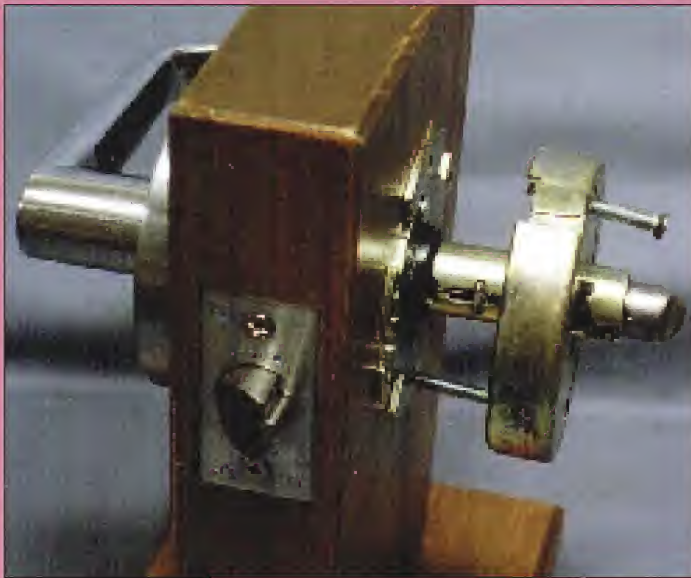
**2. With the latch already installed, the main body of the lock is installed.**



**3. The inside rose plate (with two attaching screws running through it) is moved into place.**



Continued from page 122



**4. The inside rose assembly is positioned for attachment.**



**5. The bottom screw has been tightened down.**

(from a clock face) for the extra mounting holes, you will find variations in distance from the center of the cross bore hole and variations in hole diameter.

If you are trying to re-drill just a fraction of an inch from an existing hole, you will tend to wander back into the original hole. If you don't have a special installation jig to keep your hole straight, you may prefer to use a round file rather than a drill bit to shift a hole slightly.

With the latch already installed, the main body of the lock is inserted through the mounting holes as seen in Photograph 2.

The cylindrical portion of the lock body mates with the latch, and the two studs fit through the extra mounting holes located at 12 o'clock and 6 o'clock.

The inside rose plate (with two attaching screws running through it) is moved into place in Photograph 3. The two small pointed gripper surfaces of the rose plate will fit into the notched cuts at 3 o'clock and 9 o'clock of the cross bore hole. Then the attaching screws will be tightened down with a Phillips head screwdriver.

In Photograph 4, the inside rose assembly is positioned for attachment. Two screws will fit into the studs which come from the outside. The bottom screw has been tightened down in Photograph 5, and the top screw is about to be attached.

The rose assembly is important because within it there is an additional return spring, which helps to overcome the effects of gravity on a lever handle. Because of the relatively balanced round shape of a knob, gravity does not have a great tendency to cause sagging or rotation. A lever handle, by contrast, has considerable weight toward the end, and gravity

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tends to pull it downward. That additional return spring ultimately helps to minimize lever sag.

The rose cover fits over the rose assembly in *Photograph 6*. There is a small dimple in the metal with a raised surface on the underside just left of top center and a matching one on the opposite side, which rides in a slot cast into the rose assembly. The rose cover presses onto the rose assembly and is secured from coming off by rotating it slightly clockwise. It can be removed by a reverse motion. The installation is completed in *Photograph 7*, with the attachment of the inside lever handle.

#### The Interchangeable Core

The S. Parker IC leverset is designed to accept either six or seven pin Best style cores. Two different length adapter tail pieces are included with the lock, one for six pin cores and the other for seven pin cores. A six pin Best style core is shown in *Photograph 8*, right next to the tail piece for seven pin cores. The six pin core tail piece has been installed, just waiting for a six pin core to be inserted into the housing opening.

The control key is turned 15 degrees clockwise to draw in the locking lug so that the core could be inserted into the housing. *Photograph 9*, shows the core half way inserted. After the core is fully inserted in *Photograph 10*, the control key is rotated back counterclockwise to extend the locking lug and secure the core in the housing.

Insertion and removal of cores is fairly easy after the proper tail piece is attached. The actual process of attaching the tail piece was just a bit awkward, because the disc-like piece into which it fit was not properly seated at first. After a bit of tinkering,



**6. The rose cover fits over the rose assembly.**



**7. The installation is completed with the attachment of the inside lever handle.**



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**8. A six pin Best style core is shown.**

**9. Draw in the locking lug so that the core could be inserted into the housing.**



**10. The core is fully inserted and secure in the housing.**

everything managed to end up where it was supposed to be.

The S. Parker IC leverset will accept Best and Best compatible cores such as Arrow, KSP, Medeco Keymark, Peaks and other cores designed to fit into Best and Best style housings.

For additional information on S. Parker: call 800-772-7537.

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**Associated Locksmiths of America**  
<http://www.aloa.org>



Online segments include information about ALOA, visitor pages, locksmith search, member pages and set-up help. The locksmith search function allows members of the public to look for a locksmith by city, state or country.

Presumably, all listed locksmiths are members. Appearing in the locksmith search area is a comprehensive explanation of ALOA certification. The Members Pages area offers info on events, industry news, convention news, employment, and more. Links are also provided to several other locksmith sites.



**Ilco Unican**  
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View separate online areas for corporate, product and technical information, as well as new and press releases, and a search feature. Although we could not explore the entire site with our outdated web browser, the extensive "What's New" section gave us access to a wide variety of product information, beautifully illustrated. The key machine area, for example, allows you to select your region of the world to view machinery for your market. The "What's New" area appears to be updated very regularly with late breaking information.

**Clearstar Security Network**  
<http://www.clearstar.com>



This is a huge site, replete with a great deal of information for both the public and the locksmith. Sensitive information is password secured. The public can search for locksmiths registered with ClearStar by area code. Locksmiths have access to an enormous number of linked sites, seemingly covering the entire world of security. The linking choices are a good benefit of the site. Online areas give information on locksmith associations, employment opportunities, industry news, classified ads, shareware and more.

**The National Locksmith**  
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General information on locksmithing is provided for the public. An advertisers section gives information to those who market through the magazine. Most of the site is devoted to locksmiths with areas for Q&A where you can get 24 hour technical advice from fellow locksmiths. Certain articles from the current issue are online, including the current Technitips column. The magazines Product Catalog is online allowing you to preview sample pages of the most popular manuals. Sensitive information is password protected.

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This mammoth site features the following departments: About Schlage, New Products, Product Info, History of Locks, Security Net (safety info), Schlage Vision (quizzes and games), and more. A spanish version of the site is also available by pushing a button. The History of Locks area gives magnificent photos and data on a huge range of locks, and anyone interested in the historical value of locks should check this section out. Information is included on everything from primitive locks to security in the 14th century, plus a great deal more. **TRL**



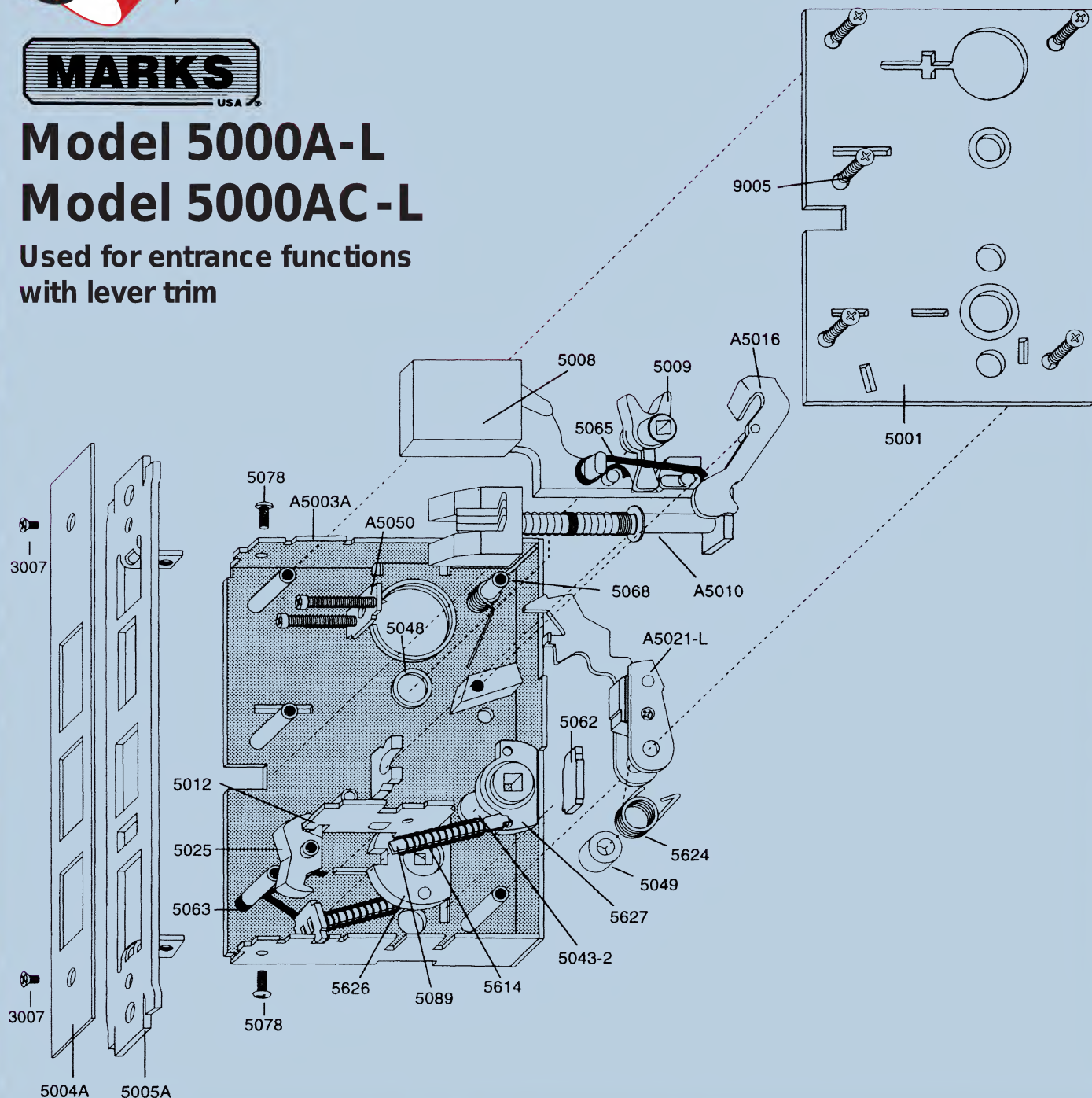


# EXPLODED VIEW

**MARKS**  
USA

## Model 5000A-L Model 5000AC-L

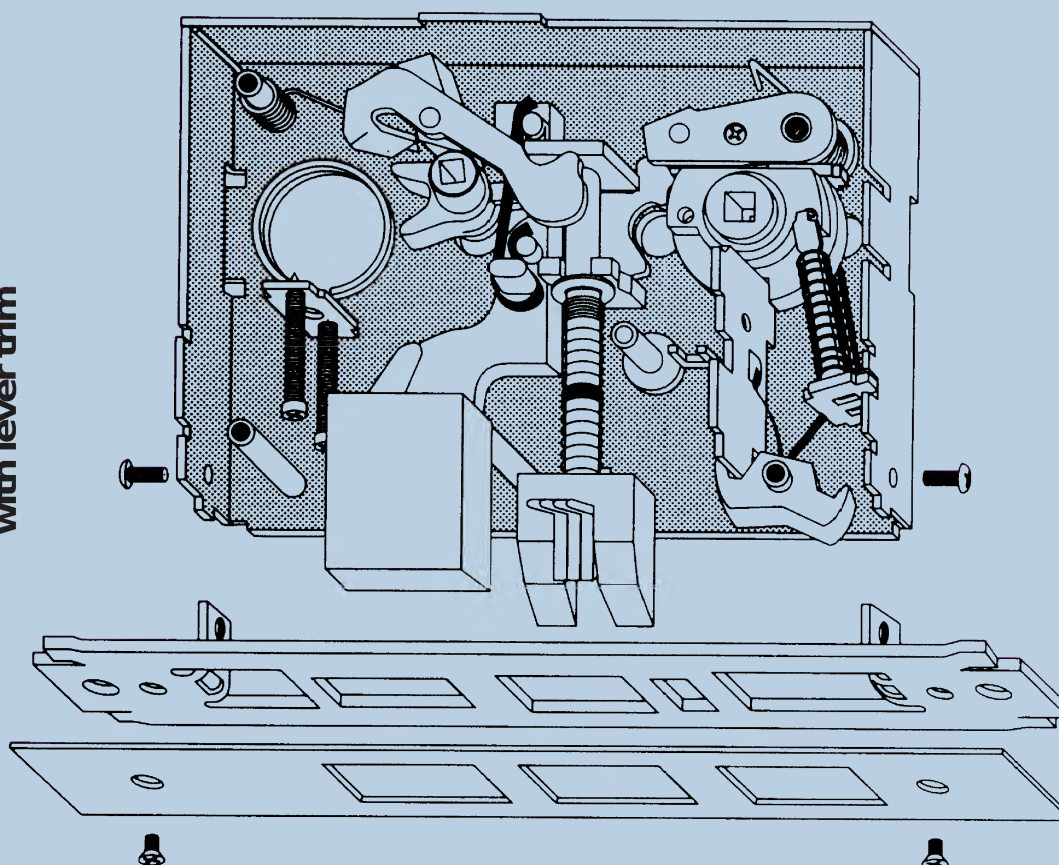
Used for entrance functions  
with lever trim





# Model 5000A-L Model 5000AC-L

Used for entrance functions  
with lever trim



Part	Description	Qty
3007	Screws, Faceplate	2
5001	Cover	1
A5003A	Case "A"	
5004A	Faceplate	
5005A	Backplate	1
5008	Lever	1
5009	Lever, Deadbolt	1
A5010	Latchbolt Assembly	1
5012	Follower, "A"	1
A5016	Lever Assy, Cylinder	1
A5021-L	Hub Lever Assembly, "A"	1
5025	Push Button	1
5043-2	Spacer, Hub Disk	1
5048	Spacer, Deadbolt Lever	1
5049	Spacer, Latch Lever	1
A5050	Cylinder Screws and Bracket Assembly	1
5062	Plate, Rigid Hub	1
5063	Spring Follower	1
5065	Spring, Deadbolt	1
5068	Spring, Cylinder Lever	1
5078	Screw, 8-32 x 9/32"	2
5089	Hub Link	2
5614	Spring, Hub Link	2
5624	Spring, hub Lever	1
5626	Hub, Outside, 5/16"	1
5627	Hub, Inside, 5/16"	1
9005	Screw, 8-32 x 1/2"	5





# MAGNET MADNESS



**M**agnetism is considered a phenomenon of physics. It's presence is often overlooked. As mechanics of security hardware we tend to marvel at what we can see in motion. The idea that what is seen is understood, is as old as time. Just look at your customers when they experience the operation of a key machine, a lock or a safe. With inquisitive wonder they desire to reach out and touch that dial on the safe or turn the key on your display. By doing this they fulfill many senses that satisfy their natural urge to understand. With magnetism there is still a feeling of awe, since it performs work without visible motion.

Magnetic use in the security industry is becoming more prevalent with each new product. Door control systems favor the use of an electromagnet instead of an electric strike, since it's installation is faster, cleaner and has less wear. Lock cylinders utilizing magnets experience reduced wear and smoother operation than the metal to metal contact of mechanical cylinders. Even card reader systems employ the use of magnetic theory in their encoding of cards and hardware. For the purpose of this article, I will expose another use of the phenomena of magnetism to provide key control, high security and vandal resistance.

In *Photograph 1*, is a product made by Securitech Group, Inc. of New York. The Securiguard 6300 is a cylinder guard which lists for \$110.00. It is a magnetically operated device which comes with two magnetic keys. If more than one Securiguard is required, they can be keyed alike. Additional keys list at \$10.00.

Also in *Photograph 1*, is a MIWA EC rim cylinder provided by MIWA USA of Las Vegas. It lists for \$62.00 and is also a magnetically operated device. It is made of solid brass with a stainless steel face cap. These face caps can be changed to accommodate the desired finish. Both of these products have been installed on an imported fire safe under the label of MAJOR which uses both a combination dial and a lock cylinder for opening, and can also allow a day lock feature with just the key. Installation was fast, easy and profitable!

Begin by removing the OEM lock cylinder ring from the face of the door. The lock housing will be removed

since it is designed to house a small diameter OEM cylinder which we will not be using. Now we must enlarge the hole in the door to accept the MIWA rim cylinder. This will not take much since the decorative plate on the door surface is covering a slightly larger hole in the actual door and it is thin aluminum. Light filing will do the job.

Install your MIWA cylinder as you would any rim cylinder. A cylinder riser collar is provided with the Securiguard should you need it. *Photograph 2*, shows a template supplied with the Securiguard. This template must be placed over the cylinder so that you can mark your drill points. Make sure it is straight! Remove the template and drill your bolt holes (see *Photograph 3*).

On this safe I was able to use both bolts since there were no obstructions, however if need be, Securitech has an alternate mounting method using only one thru-bolt.

With all the holes drilled you can now mount the Securiguard. On this model safe I had to remove the horizontal bolt bar in order for the top mounting bolt to pass thru the skin of the door (see *Photograph 4*). Unfortunately, the two bolts supplied had to be changed to a 3" x 1/4" pan head screw style to accommodate the thickness of the safe door. The original bolts hosted a pin inserted into the threads approximately 1/4"



**1. The Securiguard 6300 is a cylinder guard which is a magnetically operated device.**





**2. This template must be placed over the cylinder so that you can mark your drill points.**

from the tip. This is used to prevent anyone from tightening down too much when installing this product in a hollow metal door.

**I**f you do over-tighten the cover of the Securiguard, it will bind and not slide open. Should this occur, try

backing off the bolts a little. You may also use Loctite for a more permanent fit. Now reinstall the bolt bar and the lock body, test all components several times with the door open.

In Photograph 5, you can see an

Ilco nightlatch model IL220. This lock was chosen to replace the OEM locking bolt because of its bolt clearance and ability to relock the safe upon closing. In this application I was able to provide a key controlled, vandal resistant high security



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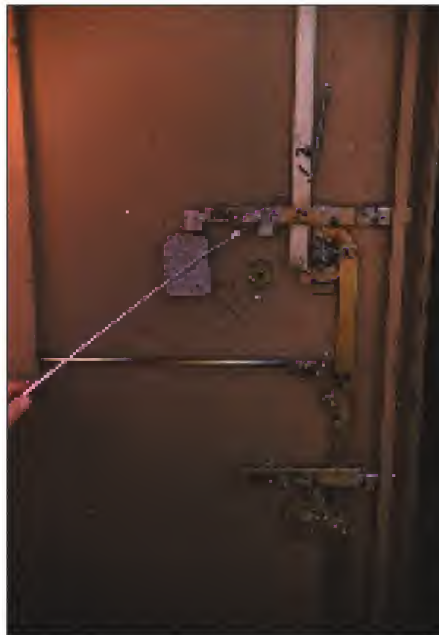
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**3. Drill the Securiguard mounting holes at the positions marked with the template.**

component to a fire safe that increased it's protective potential. By applying the MIWA cylinder I am able to guarantee key control, pick resistance, wear reduction and the ability to resist super glue attacks. Not to mention a lifetime guarantee on key breakage



**4. I had to remove the horizontal bolt bar in order for the top mounting bolt to pass through the skin of the door.**

from the manufacture.

The Securiguard compliments the idea of both key control and access control. Securiguard suggests spraying WD-40 or similar product around the outside edges to prevent

any attempt to super glue the channels. By issuing different keys to different levels of personnel, we are able to insure either supervised entry or a lock down feature preventing access. For example: A chain store manager may possess the combination and a MIWA key, the assistant manager may only have a MIWA key for daylock operation. While the district manager may have the Securiguard key fob. The manager may open the safe any time the Securiguard is open and the Assistant manager may only open the safe if the manager has dialed the combo. At any time they may both be locked out by the district manager by simply closing the door on the Securiguard.

**T**he use of magnetic key systems such as these provide you with many options that can ensure your survival in this competitive industry. First is the reduction in wear, these products work with such lack of resistance your customers will be surprised. Secondly, the idea of the use of magnets is portraying a more futuristic concept to your customers, who still have that intrigue into the phenomena of magnetism. Finally, the invasion of others upon our trade has

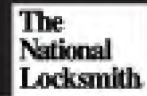
**Continued on page 136**



***Don't panic!  
We have Security  
Exit Devices.***

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*Continued from page 134*



**5. An Ilco nightlatch model #L220 was chosen to replace the OEM locking bolt.**

made an impact on key control. These styles of keys (see *Photograph 6*) will not be made, duplicated or fabricated by your local hardware or home center.

**T**here are many options I could have chosen to upgrade this safe. My choice was based on what my customers last comments were before leaving my shop. He said, "I want it to look tough, be tough and last a long time! The end result can be seen *Photograph 7*.

In this case I was able to include

the safe into a one key proprietary system, since I had already installed M I W A and Securiguard on the building. This made the end user very happy, and ensured myself of recurring revenue with both styles of keys. There are numerous scenarios that can be accomplished using these products to provide a cost effective access control system. With a



**6. These styles of keys will not be made, duplicated or fabricated by your local hardware or home center.**



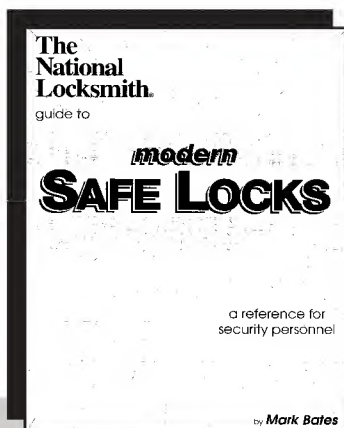
**7. The end result of this custom installation.**

little imagination and ingenuity, you can find new ways to solve some old problems. **TNL**



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*This material was excerpted from the Mark Bates book titled Modern Safe Locks. The book covers combination operating and changing procedures for virtually every combination lock both mechanical and electronic, that you will encounter on a daily basis. Modern Safe Locks is available for purchase through **The National Locksmith**.*

## Sargent & Greenleaf

<b>MODEL:</b>	<b>6709</b> (Discontinued late 1987)
<b>DESCRIPTION:</b>	Three wheel, hand-changeable combination safe lock. Dial is numbered from 0 to 99 clockwise. True left or true right hand.
<b>RATINGS:</b>	UL Group 2
<b>FACTORY COMBINATION:</b>	50-25-50
<b>OPENING PROCEDURES:</b>	<p><b>WHEN SET TO A 3 NUMBER COMBINATION (RH LOCK):</b></p> <ul style="list-style-type: none"> <li><b>a.</b> 4XL to 50</li> <li><b>b.</b> 3XR to 25</li> <li><b>c.</b> 2XL to 50</li> <li><b>d.</b> 1XR to stop (90)</li> </ul> <p>Reverse directions for left hand locks</p>
<b>TO LOCK:</b>	Turn dial left 4 times (4XR for left hand locks).
<b>FORBIDDEN ZONE:</b>	0 to 20
<b>CHANGING PROCEDURE:</b>	Typical hand change technique.
<b>TOOLS NEEDED:</b>	Medium slotted screwdriver.
<b>NOTES:</b>	Often seen on fire resistant home safes. The 6710 was identical, but with a tube encasing the spindle.

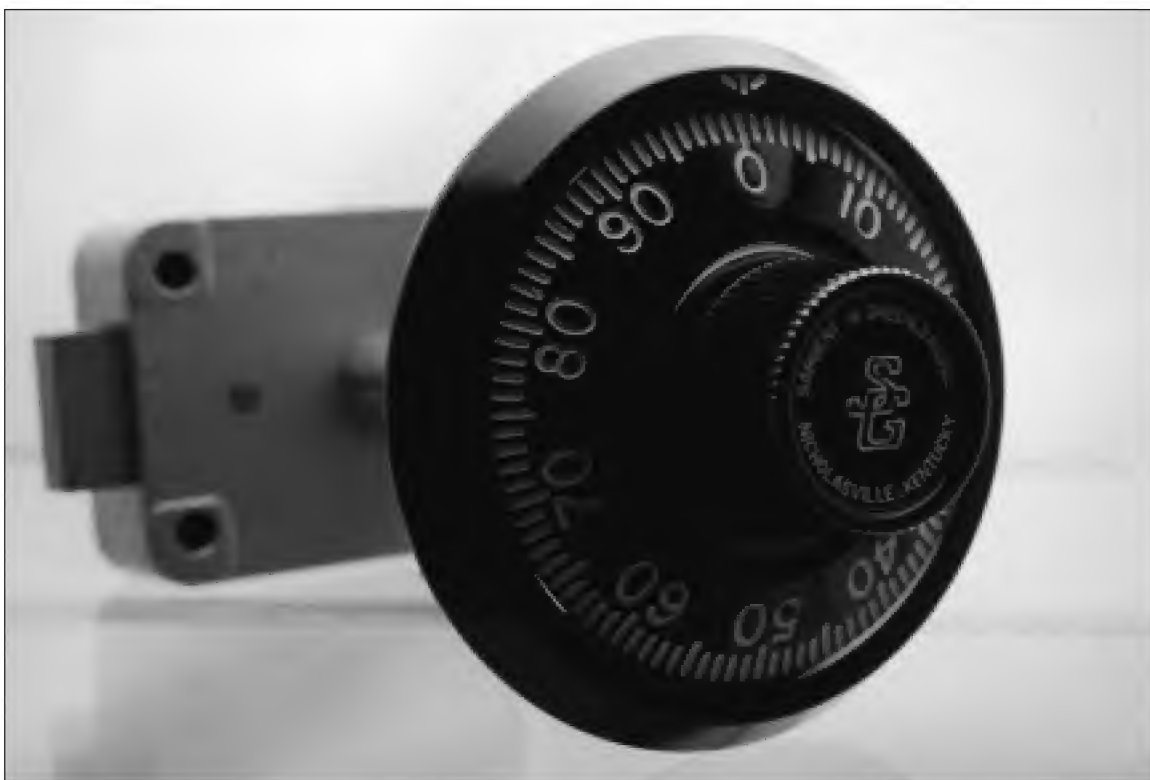


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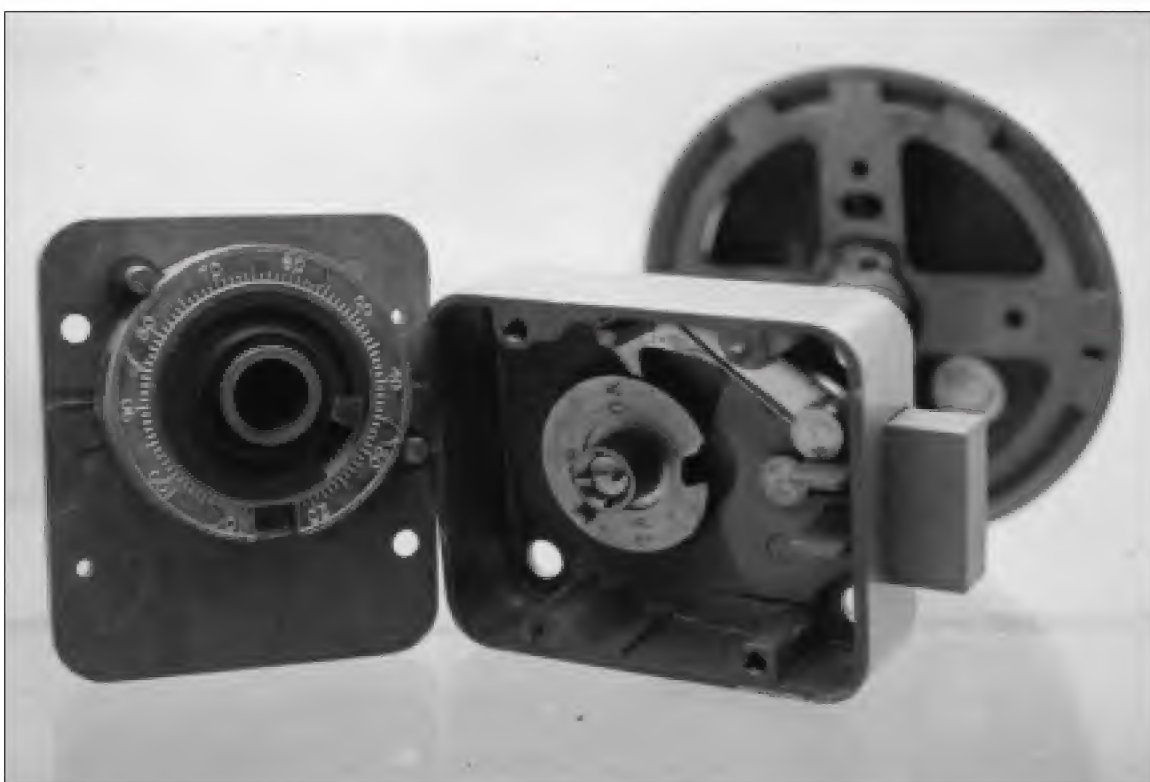
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## ***Sargent & Greenleaf***



S&G 6709



# TECHNITIPS

## YEAR-END PRIZES!

'97

**GRAND PRIZE:**  
**SILCA BRAVO DUPLICATOR**



**FIRST PRIZE:**  
**HPC'S 1200 PUNCH MACHINE**



**SECOND PRIZE:**  
**CURTIS 2100 DUPLICATOR**



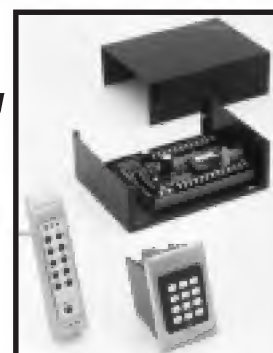
**THIRD PRIZE:**  
**\$500 IN ALL LOCK PRODUCTS**



**FOURTH PRIZE:**  
**\$500 IN ASP AUTO LOCKS**



**FIFTH PRIZE:**  
**SECURITRON  
DK-26  
TOUCHPAD  
AND CPU  
BOARD FOR  
MAGNETIC  
LOCK**



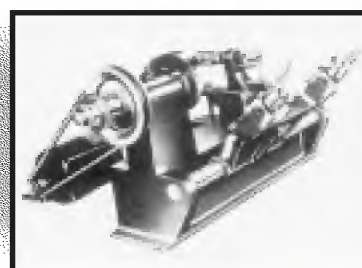
**SIXTH PRIZE:**  
**SDC  
MAGNETIC  
LOCK,  
KEYPAD  
AND EXIT  
SWITCH**



**SEVENTH PRIZE:**  
**ARROW EXIT DEVICE AND  
MOUNTING PLATE KIT**



**EIGHTH PRIZE:**  
**FOLEY-BELSAW  
200 KEY MACHINE**



**NINTH PRIZE:**  
**SLIDE LOCK'S GRAND  
MASTER "Z" TOOL SET**



**TENTH PRIZE:**  
**DEWALT CORDLESS DRILL**



**ELEVENTH PRIZE:**  
**FALLE PICK SET FROM MARK  
BATES ASSOCIATES**





## These Prizes Awarded Each Month!

- All Lock Ford or GM Kwikit
- Aero Lock Tryout Key Set
- Strattec Racing Jacket
- HPC Pistol Pick™
- Sargent And Greenleaf  
4400 Series Safe Deposit Box Lock
- A-1 Security Products
- Silca Key Blanks (100 Blanks)

- Pro Lock Pk 15  
Professional Lock Pick Set
- Tech Train Training Video
- Sieveking Products  
Gm E-Z Wheel Puller
- Major Manufacturing Products
- The Sieveking Auto Key Guide
- Jake's Grab Bag Prizes!

### Send in your tips, and win! How To Enter

Simply send in your tip about how to do any aspect of locksmithing. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Write your tip down and send it to:

Jake Jakubowski, Technitips Editor,  
**The National Locksmith**, 1533  
Burgundy Parkway, Streamwood, IL  
60107 or send your tips via E-mail to:  
Natlock@aol.com

### Every Tip Published Wins

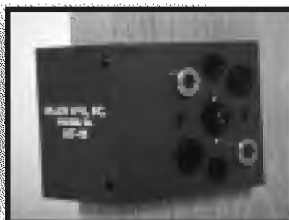
If your tip is published you will win one of the monthly prizes listed. At the end of the year, we choose winners from all the monthly tips published, that will be awarded one of the fabulous year end prizes. All you have to do to win is enter.

By entering, your chances are greater than ever that you will win one of the prizes listed. This is the biggest Technitips prize year ever. Wouldn't you like to be a prize-winner in 1997? If so, enter today!

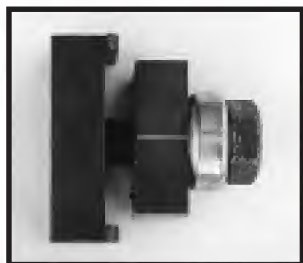
### TWELFTH PRIZE: SARGENT AND GREEN LEAF 6120 ELECTRONIC SAFE LOCK



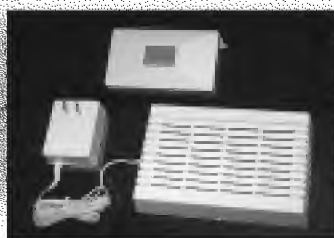
### THIRTEENTH PRIZE: MAJOR MANUFACTURING'S HIT-111 DRILL GUIDE



### FOURTEENTH PRIZE: SIEVEKING PRODUCTS SQUEEZE PLAY



### FIFTEENTH PRIZE: RODAN'S AV TX200, RX200, INDOOR WIRELESS TRANSMITTER AND RECEIVER



### SIXTEENTH PRIZE: ABUS PADLOCK'S MARINE PADLOCK DISPLAY



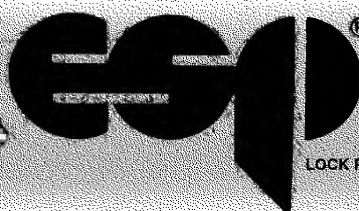
### SEVENTEENTH PRIZE: BAXTER J V-1 and J V-5 CODE BOOKS



### EIGHTEENTH PRIZE: FRAMON IMPRESSIONING HANDLE

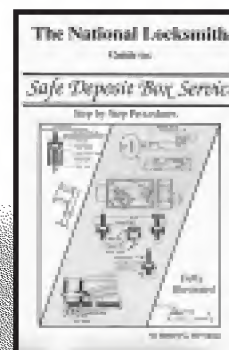


### NINETEENTH PRIZE: ESP PRODUCTS SAMPLER FROM ESP



*Tips  
start  
on next  
page!*

### TWENTIETH PRIZE: SIEVEKING SAFE DEPOSIT BOOK







**ALL LOCK KWIK KIT  
WINNER:  
Quick Pick Tubular  
Locks**

If you use HPC's Tubular Lock Pick (Model TLP-C-B) to pick open ACE and ACE-II type locks, here's a way I've found that can probably cut you tubular lock picking time in half!

First remove the spring from a discarded retractable ball point pen. The spring will be about an inch and one half long. Grind, cut or file one end of the spring until it is approximately .543" in length.



**Photograph 1.**

Now use some Beeswax or a similar substance to coat one end of the modified spring and insert it in the barrel of your TLP-C-B (see *Photograph 1*). The Beeswax will hold it in place. Now set the picking "fingers" of the pick and insert the pick into the lock. You'll find that all you'll need is a very gentle inward pressure and to gently turn the pick left or right depending on the lock you're trying to pick. Now pick as usual.

Once the lock is picked, remove the spring before duplicating or decoding the pick.

John M. George  
California

*[Editors Note: John, I've got to confess, your tip intrigued me and I just had to take the time to find out whether or not, such a simple idea would really improve the pickability of ACE type tubular locks. So... I got out a couple of old Taylor mortise cylinders with a tubular keyway, gave them each a shot of WD-40 and set to work. Keep in mind these old Taylor's have been hanging around my storeroom for about ten years, or so. At any rate, the first one picked on the first try and the second one on the second try. Without the spring, it took me two tries for each one. Now, I know that quickly picking two cylinders does not indicate a trend, but it sure felt like they picked easier with the spring than without.]*

## A Few Words From Jake...

Just recently, Christie and I were driving up in Virginia and passed a state lottery outlet with a big sign that read "10.4 MILLION!" It was the total of that week's lottery jackpot. I commented to Christie that it would surely be nice to be the big winner for that week. She said that it would be, but since we never (at least very seldom) bought a lottery ticket, we didn't stand much chance of winning anything!

Now, I didn't slam on the breaks and run in to buy a fistful of lottery tickets, but the conversation did start me to thinking about you folks who are reading this column.

You've seen the new, bodacious year-end prize list and you can see that the monthly prize list is bigger then ever this year. And maybe - just maybe - you've thought you would sure like to win one or another of those prizes.

But! You never send in a tip. Not sending me a tip is like me not buying a lottery ticket. If you don't play the game — you can't share the fame. And ... the odds of winning a prize ( actually a bunch of prizes) from The National Locksmith's Technitips Column are a whole lot better then trying to win even a small monetary prize in any state lottery!

The really nice thing is: You don't have to buy anything! Y'all heah what I'm sayin' now?



by Jake  
Jakubowski



**AERO LOCK TRY-OUT  
KEY SET WINNER:  
Toyota Ignition Key  
Extraction**

The new type Toyota Corolla ignition with the retainer button on the bottom can be a problem to service if you have a broken key in the ignition that can't be extracted first. The problem comes from the fact that you need to turn the ignition to the "ON" position before you can depress the retainer.

My solution to this problem is to remove the lower dash panel and the ignition lock shroud. Then carefully pull all the wires away from the bracket with the shear head screws to prevent damage to the wires.

Now, use a 3/4" cut-off wheel on your Dremel Tool to cut slots for a screw driver in the shear head bolts. Remove the bolts and then remove the entire ignition housing assembly from the column.

Place the housing upside down on your workbench, or any solid surface. Using a straight 1/8" punch and small hammer, hit the retainer a sharp lick or two driving the retainer into the lock plug. Don't get too rambunctious here, since you want to try to salvage the ignition. Strike the pin just hard enough to drive it in far enough, to remove the ignition. Since the retainer is made of brass, this is easy to do if you're careful. Now remove the ignition.

Place the ignition cylinder face down on a vise and using a 1/16" punch gently punch around the circumference of the face cap and drive it down over the three bradded pins which hold it in place. Now, with the face cap removed, you can remove the ignition cylinder and disengage it from the steering column lock rod.

If you look down through the back of the cylinder, you can see the wafers and by pressing them to the shear line with a pick you can now slide the plug from the cylinder housing. Once the plug is out, you can remove the broken piece of key.

All that's left to do is reassemble the cylinder and column, cut a new key, and you're done. Just take your time and do it right and you can salvage the ignition.

Albert W. Christopher, CRL  
South Carolina



**STRATTEC RACING  
JACKET WINNER:  
Metal Door Deadbolt  
Installation**

Here's how I install deadbolts in metal doors with or without a center seam. I start by marking down from the top of the door approximately thirty to thirty-six inches and carry that line around both sides of the door and across the edge. Then, using my square, I measure back, from the edge, an additional 1/16" to any backset that





**Continued from page 145**

I have also found that it is hard - especially at night - to read the numbered markings or notches on my opening tools. To solve that problem, I have taken colored tape and marked my tools like a traffic light. Number one is red, number two is yellow and number three is green. Now it's easy to see if my tool is positioned properly in the door.

I have taped other car opening tools in the same manner, marking the measurement points. This works better for me then guessing.

R. J. Kent  
New York

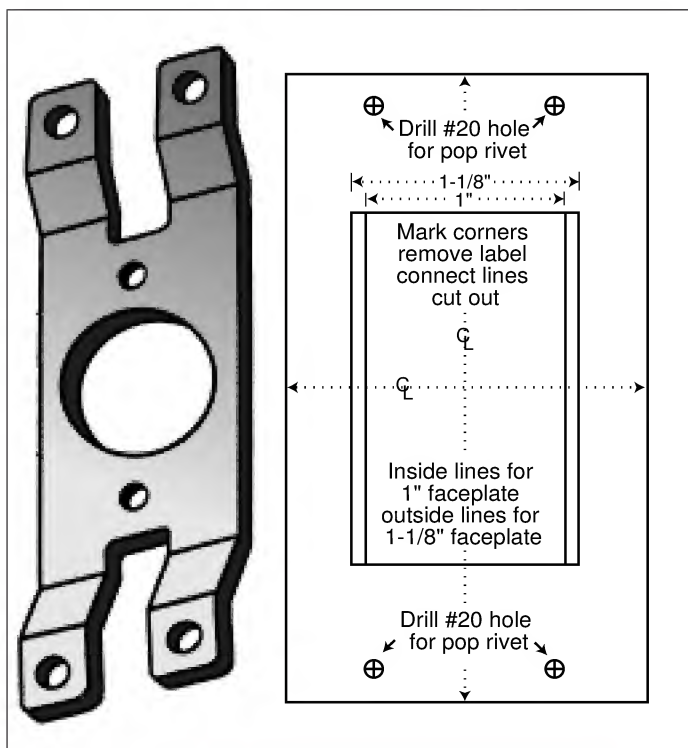
[Editor's Note: RJ's window cleaning tip reminded me of something I read several years ago about cutting a strip from a plastic milk jug about four or five inches wide and putting an old sock over one end and securing the top of the sock with a rubber band to keep it from coming off the plastic strip. The wider strip will give you a larger cleaning area. Either way, the more you can see the easier your job will be.]



**SARGENT AND  
GREENLEAF WINNER:  
Hollow Door Lock  
Installation**

Here's my answer to rapid, professional installations of locksets in

hollow steel doors. I use a products made by Major Manufacturing called the LMB-01 (also the LMB-02) (see *Illustration 2a*). The LMB-01 is much superior to the use of drive-in latches.

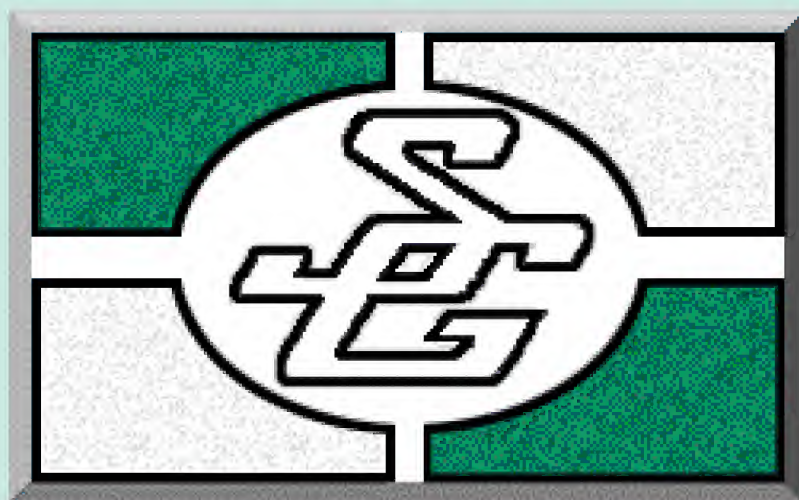


**Illustration 2a**

Simply apply the self-adhesive template at the proper position on the door and mark the four corners of the cutout and the four rivet hole centers with a punch. Remove the template and scribe the cutout lines with a scribe and square.

On diagonally opposing corners, drill a 3/8" hole in each corner. Use a saber saw to make your horizontal and vertical cuts. Then smooth the cut out and square the corners with a mill file.

Now drill the four rivet holes. Since a regular twist drill will leave burrs on the inside of the door and prevent the bracket from being drawn up tightly by the rivets, I recommend using a Black & Decker Bullet Pilot Point bit, which will eliminate the problem. An



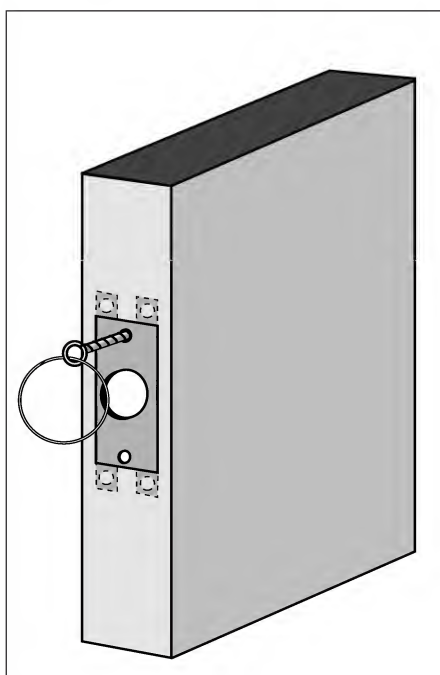
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11/64" bit will work fine.

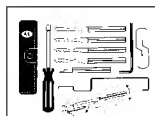
You can make a simple installation tool with a 3" key ring and a No. 1 (8/32" x 1-5/8") eyebolt and nut. Attach the eyebolt to the key ring and thread the nut on the bolt a half dozen turns or so. Now, insert the eyebolt in one of the tapped holes of the LMB-01 and turn it in three or four threads. Tighten the nut down against the LMB-01 finger tight and use the eyebolt to insert the LMB-01 into the door cavity (see *Illustration 2b*). The key ring will prevent the latch from falling inside the door should you drop it.



**Illustration 2b.**

Finally, fasten in place using the supplied blind rivets. For an extra slick job, or if the clearance between the door and frame is limited, substitute countersunk rivets for the button-head types supplied.

Peter P. Schifferli  
New York



**A-1 SECURITY  
PRODUCTS WINNER:  
Titan Plug Removal**

To remove a Titan plug from a key-in-knob cylinder when there are no keys available, simply pick the lock as you would a normal Kwikset. I have not noticed any more difficulty picking a Titan over a Kwikset except for the fact that the Titan is a six pin and the standard Kwikset is a five pin.

At any rate, pick the Titan 90 degrees to the left and using your pick or a hooked tool of some sort, just "tug" on the cylinder until it comes out

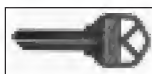
of the knob. Since you don't have a key in the plug, when you pull, you'll feel the spring loaded retainer "give" or bottom out as you pass the release point.

After you have rekeyed the cylinder and checked it for proper operation (without installing the retainer clip), remove the plug, take out the key and reinsert the plug 90 degrees to the left of center without the key in it. Then just push the cylinder into the knob and with the tip of the key or a screwdriver, turn it to the right until it locks up.

If you do have a working key but no removal key, simply cut a slot in the bottom of the existing key (if you're rekeying the lock) or duplicate another key and cut the slot in the duped key. Center this cut just below the peak between cuts two and three. Make the cut approximately 3/16" to 1/4" in width.

Insert your removal key, turn it 90 degrees to the left and pull the cylinder out. Then service the cylinder in whatever manner is necessary.

Tom Taylor  
Colorado



**SILCA KEY BLANKS  
WINNER:  
Repairing Sloppy  
Tilt Columns**

Have you ever been called to service a GM Tilt steering column that was loose and sloppy and recommended that your customer take the car to a mechanic or GM dealer to have it fixed? Well, quit throwing money away. Here's how you can make your customer happy by saving them a few dollars and putting a few more in our own pocket as well. This is especially true if you are already down to the ignition switch. At this point you are two thirds of the way to correcting the problem.

First look down into the column. See the silver T-30 screws? Remove them. Now gently pull the top part of the column over the end of the column shaft. Most of the time you have enough slack in the blinker assembly harness to allow you to do this. At the very worst, you may have to detach the harness plug from under the dash to give you more room.

Pay attention to how the dimmer actuator comes apart on the left side of the column so you can reassemble it properly later on.

Now all you have to do is pull the

pivot pins, release the tilt rack and you will see the four bolts that have worked loose and are responsible for the "play" in the column. Remove them one at a time and put a lock washer under each and re-tighten.

Total extra time on the original job? Less than thirty minutes.

Steve Myslik  
South Carolina

*[Editor's Note: I would like to caution anyone who wants to try this procedure to first learn all they can about steering column service. A good place to start is with The National Locksmith's "GM Steering Column Course." I would further recommend that you practice on a GM column or two in their favorite junk yard before offering this technique as a part of your normal service package.]*



**PRO LOCK PK 15  
PROFESSIONAL PICK  
SET WINNER:  
Reflecting The Light**

One morning when I arrived at an auto lockout, I realized that I had left my inspection light at home and could not see the linkages inside the door very well.

One of the bystanders had an old side-view mirror from a car and suggested I try using it. The mirror reflected the sunlight into the door cavity and it was almost like having the door panel off.

I now keep a small mirror in my service vehicle, just in case I forget my light again or my batteries run down unexpectedly.

James Pakkala  
Michigan



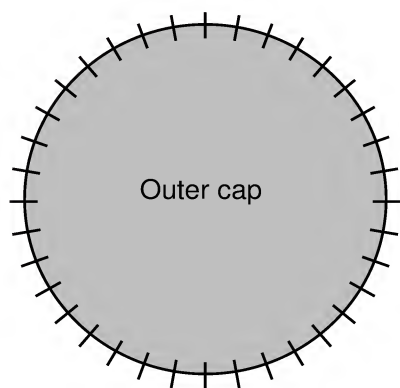
**TECH TRAIN  
TRAINING VIDEO  
WINNER:  
Face Cap  
Replacement**

The other day, I was called to rekey three Jeep tailgate locks using STRATTEC service packages #701715 and #702129. These service packages were purchased by the body shop that had called me in to do the actual rekeying.

When I arrived I found there were no tabs on the face caps as there are on conventional replacement door lock face caps. Since the customer had to have the job done right away, and I did not have a good substitute on hand, here's how I solved my problem.

As you can see in *Illustration 3*, I

Make cuts all around evenly spaced then bend the tabs over to stake it to the case. Also do the same for the keyway case!



One cap is about 1-1/2" diameter

**Illustration 3.**

used a Dremel tool with a #409 cut-off wheel and cut notches all the way around the circumference of each cap. The cuts were about 1/8" deep and as evenly spaced as I could make them.

Now, I was able to use a screw

driver to "push" the face cap "tabs" down and stake the caps to the case without any problems.

Ron Nayda  
New Jersey



**SIEVEKING  
PRODUCTS GM E-Z  
WHEEL PULLER  
WINNER:  
Single Sided  
Convenience**

A customer came in the shop one day with a broken X-71 key, which is used on older Honda vehicles. The lady was a familiar sight to all of us as she was frequently in the shop having this same broken key duplicated.

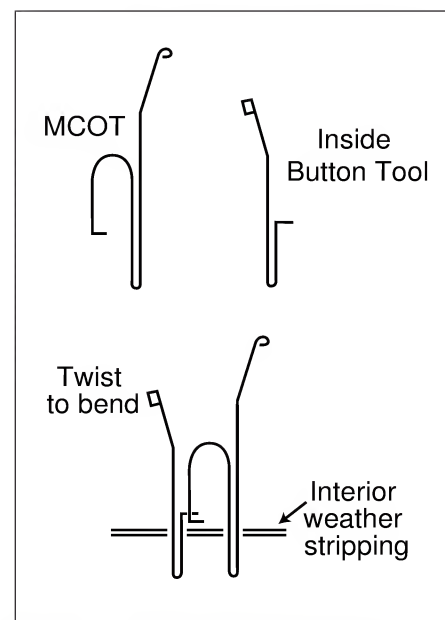
As most of you are aware, the X-71 utilizes three depths and six spaces. It is a double cut convenience key. If the key was not inserted into the ignition lock completely, and there was a deep cut near the bow, the key would break.

Although the key is double sided, the locks are not. What I did was cut the key on one side of the blank and showed the customer how to insert the key properly. The customer has not come back with a broken key since.

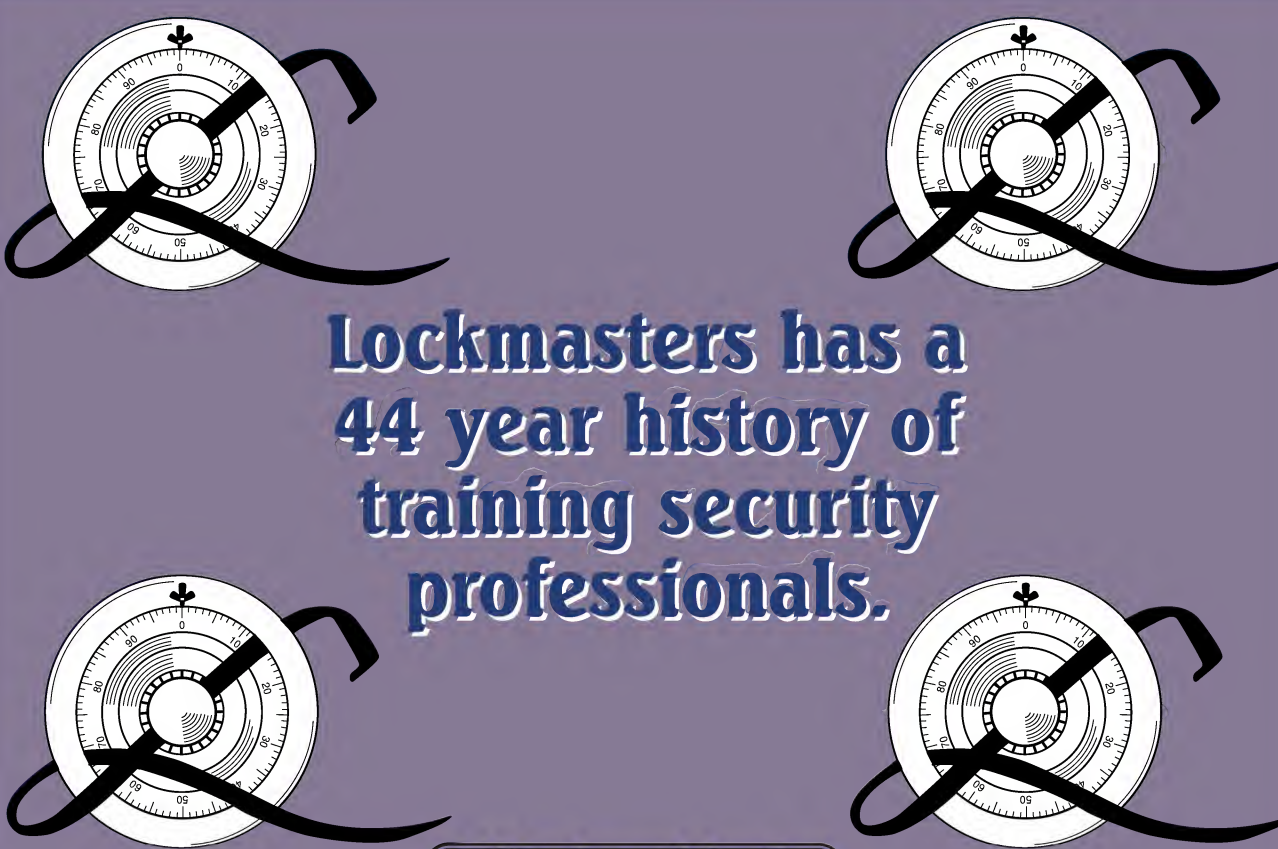
Toby Jefferys  
New Mexico

**Major**  
MANUFACTURING, INC.  
**MAJOR  
MANUFACTURING  
PRODUCTS  
WINNER:  
Removing Stuck Under-The-  
Window Tools**

I frequently use an "Under-the-Window" tool when unlocking various vehicles. The design of the tool makes



**Illustration 4.**



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it very difficult to remove once in place if the door is not open. The best way I have found to remove a stuck Under-the-Window tool is to use what I call an "Inside Button Tool" used primarily to manipulate the buttons on Toyota trucks (see *Illustration 4*).

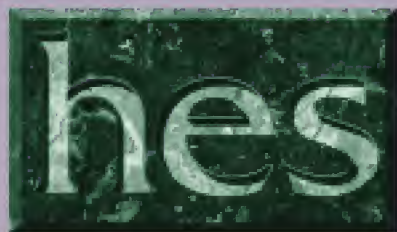
Insert the Inside Button tool next to the Under-the-Window tool and raise the tip of the tool above the inside weather stripping. Maneuver the inside Button tool above the tip of the Under-the-Window tool and twist the button tool to press the stuck tool against the window. Now lower the Under-the-Window tool down through the weather stripping until the tip is about an inch below the weather stripping. Now remove the Inside Button tool and the remove the Under-the-window tool.

John Marske  
California



**SLIDE LOCK'S "Z" TOOL OPENING SET**  
**WINNER:**  
**Replacing Ford 10-cut Ignition T-Turns**

On several occasions, I have come across the problem of the large style face cap on later model Fords with



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10-cut ignitions breaking loose from the ignition plug. I've tried gluing the face plates back on but this proved unsatisfactory.

To repair this problem, I remove the ignition from the column and then remove the plug from the cylinder housing. I then insert an uncut blank in the plug and put this in my vise.

The next step is to place the face plate/thumb turn over the head of the key blank. Using a 7/64" bit, I drill through the face plate about 1/8". I do this on both sides of the keyway. Then I force a .155" to a .165" pin in each hole and use a punch to tap the edges of the hole closed to keep the pins from backing out.

This repair prevents the face plate/thumb turn from spinning around the plug and does not interfere with the operation of the ignition.

Brian Goodson  
Texas



**1995 THE SIEVEKING AUTO KEY GUIDE WINNER:**  
**Chrysler Key Extraction**

When the wrong key — or the right key inserted upside-down — is forced into a Chrysler pin tumbler ignition switch and is trapped by the buzzer activator, it can be a difficult job trying to remove the trapped key.

To make it easier to remove, I use two pieces of .020" thick spring steel about 2-3/4" long and grind one to approximately .110" wide. Then about halfway down its length, I grind it down to about .080" wide. The other one I grind to about .065" wide and .045" thick. I taper the second one to a point and then bend it to about a 20 degree angle 1-1/2" from the tapered end.

With this tool, I can slide it down the keyway between the key and the buzzer activator and pull the key out by hand or with pliers. If the key has been broken off in the keyway, I use both of the tools to remove the broken key. I just slide one on top of the key (the bent one) and slide the other between the key and the activator. Often I can just gently pull the broken end of the key out of the lock.

Royce Evans  
Ohio



**JAKE'S GRAB BAG PRIZES WINNERS:**  
**Custom Profile Cylinder Plug Followers**

Recently, I had to rekey a Papaiz profile cylinder. Not having one of the magnetic followers that I have seen advertised, I decided to try something similar.

I took a piece of steel bar stock the same size as the Papaiz plug and cut it into 1/8" pieces. I put each piece through a tool magnetizer and now have my own magnetized follower for those Euro-style cylinders.

Richard A. Holliday  
Illinois

### **Nissan Clip Removal**

The wire door clips on Nissan vehicles have a small prong that keeps the clip from vibrating off the lock. This makes the clip very troublesome to remove. To do so, I use a long screwdriver to bend down the prong on at least one side. Now the clip can easily be slid off the lock. Before replacing the clip, I bend the prong back to its original position and then complete the installation.

Raiford Ball  
Tennessee

### **Door Handle Nut Remover**

I made a handy tool from a piece of 14" x 3/8" rebar and a 10mm socket for removing the 10mm bolts that hold many foreign door handles to the door.

Bend about 4" of the bar to a 90 degree angle. On the other end weld a 3" long 1/4" socket extension and grind the weld smooth.

The extension will take whatever sized socket I need and I glued small magnets into each of the sockets to keep the nut from falling off and down into the door panel. The rebar handle gives me more than enough torque to break loose the most stubborn nut.

Steve Stanhope  
Texas

TRL

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# THRU THE KEYHOLE

## A Peek at Movers & Shakers in the Industry

### ATTENTION MANUFACTURERS AND DISTRIBUTORS:

Would you like your company and products to be profiled in *Thru The Keyhole*? Please call Editor, Greg Mango, at (630) 837-2044.

### Pine Technical College

Pine Technical College is one of Minnesota's 37 colleges and universities located in Pine City, Minnesota, 60 miles north of Minneapolis/ St. Paul. The PTC campus provides a friendly, small town atmosphere, amidst the lakes, rivers and woods of northern Minnesota. In addition to majors in business, health, human services, automotive, machine trades and gunsmithing, the college offers several options for person interested in a locksmithing career.

The key word in Pine Technical College's locksmithing education program is choice.


The Security Technician/ Locksmithing Diploma program is industry-oriented and emphasizes practical, hands-on learning and guided practice. The 48 credit diploma program can be completed in one school year. The course covers identification and service techniques for the most common situations faced by the locksmith technician. The emphasis is on basic skills, such as key origination, codes, bypass techniques and identification, encompassing automotive, commercial and basic electronic systems.

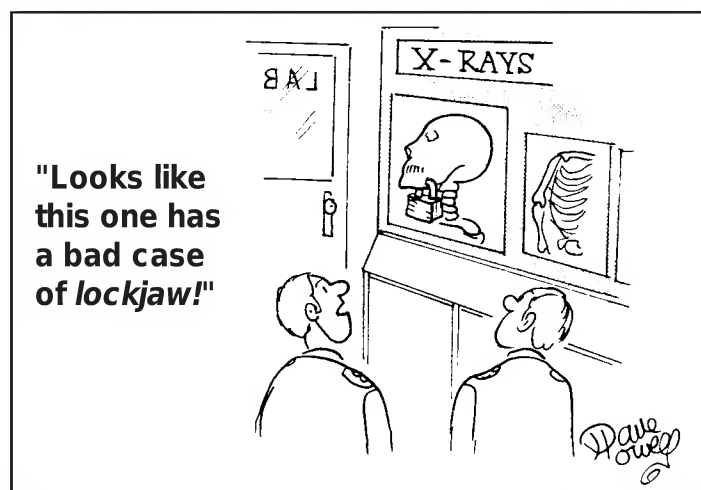
Upon completion of the initial Diploma, students have several options from which to choose. They can: go directly to work as an entry-level technician; continue with an additional 48 credits to earn an Associates of Applied Science Degree in either Security Technician/ Locksmithing or Security Management; work toward additional specialties such as Locksmithing or Security Owner/ Operator; or work toward certification by the Associated Locksmiths of America.

According to Department Head John Heckman, CMI, the college has expanded its choices to meet a broader market. "Whether a person is looking for a short-term certificate in advanced skills, a one-year diploma in hands-on locksmithing, an associates degree in locksmithing or

security management, or various combinations, we can now better meet their needs," said Heckman. "Though we still are a hands-on, campus program, through interactive television, e-mail and the Internet, we soon will have the capabilities to deliver some courses to persons at their home or work site throughout the country."

A high school degree/ GED, criminal history check, and letters of reference are all that are required for entrance into the program. Resident tuition runs about \$45 per credit, and non-residents pay about \$90 per credit. Financial aid, on-site child care, placement assistance and other student support services are also available. The college is nationally accredited and all programs are approved for veterans' benefits.

For more information, call PTC's Admissions Office at 1-800-521-7463 or contact us via the Internet at [www.ptc.tec.mn.us](http://www.ptc.tec.mn.us). 

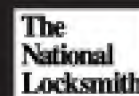




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# KEY CODES

## 1997 Ford Escort 10100-12099

### HPC 1200CM:

Code Card: CF68  
HPC Cutter: CW-1011

### Framon:

Cuts Start at: .098  
Spacing: .083  
Block #: 5

### Key Blanks:

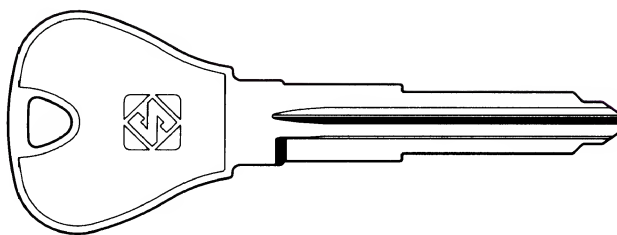
Ilco - H76 or H65  
Ilco - X244 or X221  
Silca - FO32R  
Curtis - H65

**Cut to Cut Spacing:** .083

**Number of Cuts:** 10

**Gauged:** Bow to Tip

**M.A.C.S.:** 3



**FO32R**

### Spacing:

1.	.098	6.	.511
2.	.180	7.	.593
3.	.263	8.	.676
4.	.345	9.	.758
5.	.428	10	.841

### Depths:

1.	= .315
2.	= .299
3.	= .284
4.	= .268
5.	= .252

**Note:** This code series is the same as the Mazda 10-cut series.

### 10100

00 1214521232  
01 2343212141  
02 2521452323  
03 4141254143  
04 4325454121  
05 4341252125  
06 2125432523  
07 3232145232  
08 2141412523  
09 5452145232  
10 3434325212  
11 4341234521  
12 5454325214  
13 5232123452  
14 3412521452  
15 3214143254  
16 1254121232  
17 2141452141  
18 2143252323  
19 5434123232  
20 3454525214  
21 1212323432  
22 3452341252  
23 4323234123  
24 3212341234  
25 5432145412  
26 4341412143  
27 3254141452  
28 3252343214  
29 2325214545  
30 2345214321  
31 1234343214  
32 4143212343  
33 5454125254

34 4145234325  
35 1435321454  
36 5452523412  
37 4145452323  
38 5412321234  
39 5432323452  
40 2543414521  
41 1432143232  
42 1454321212  
43 4143214321  
44 1432145432  
45 4545452141  
46 4323254125  
47 3234325214  
48 3252343452  
49 1432325412

### 10150

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52 4325452543  
53 2123414141  
54 4521234123  
55 4325432341  
56 2541232341  
57 1232343412  
58 1254521434  
59 1232525454  
60 2545232143  
61 4345252143  
62 3214525412  
63 1412541214  
64 5434125454  
65 5454343252  
66 2523432541  
67 3234525252

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69 3212541212  
70 5412341212  
71 2341454525  
72 2143414321  
73 2321234341  
74 2325254523  
75 1432321254  
76 5452325412  
77 1212143452  
78 1234341452  
79 3454323454  
80 2521434141  
81 2341412521  
82 2345412141  
83 2541454523  
84 1234123234  
85 2541232545  
86 4321212145  
87 2145234341  
88 4545232323  
89 1434125432  
90 3254321214  
91 1234543452  
92 2452145252  
93 3254145412  
94 4543432345  
95 1414543212  
96 5432541232  
97 1214321432  
98 5252341254  
99 4121412345

### 10200

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01 4121434525

02 4345432325  
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04 5232343254  
05 2345452321  
06 5232145452  
07 4145412541  
08 1452121234  
09 2541434321  
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13 2125214145  
14 2321234125  
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17 2341252343  
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19 2343432521  
20 2143434321  
21 4123414323  
22 2541234543  
23 4321212345  
24 4341214325  
25 2325254141  
26 1432343454  
27 4125234141  
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34 3214121232  
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44 3434143252  
45 3412523432  
46 4345254143  
47 4523412141  
48 1412521254  
49 3232123434

### 10250

50 4523214325  
51 4521412125  
52 3232125452  
53 2125234143  
54 1212543212  
55 2121214543  
56 2543212325  
57 1212541252  
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### 10300

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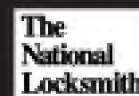


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# 1997 Ford Escort 10100-12099

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67 3452341434	31 3214145452	95 3212123412	58 4545252323	22 3214521234	86 1252343212
68 1412321432	32 4323232143	96 5232345212	59 3234341432	23 2521434321	87 2345414325





Continued from page 154

## 1997 Ford Escort 10100-12099

88 1252523434	17 5234343412	47 2325434143	76 1412525412	40 4143232545	03 4543252345
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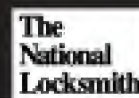


Continued from page 156

# 1997 Ford Escort 10100-12099

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Continued from page 158

# 1997 Ford Escort 10100-12099

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Continued from page 160



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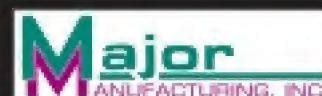
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33 2121434341	95 2521414521	56 2343212345
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# 1997 Ford Escort 10100-12099

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# Opening an SLS



by  
Dale W. Libby

**T**here are some safe and chest names that bring a feeling of challenge and accomplishment. Some of these include Mosler, Major, Amsec, and Knight, just to mention a few. Then, someone wants you to open a chest that you have never worked on before. This is both good and bad.

The less than happy fact is that you have never worked on this unit, so everything will be new. There is a confidence level that exists whenever you meet an old enemy that you have defeated or one of its first cousins that has fallen to your ministrations. Whenever facing a new opponent, there is both an air of expectation and

excitement when we confront a new foe. The new challenge is a new narcotic.

The happy part of this challenge is that most high security non burglarized money chests are defeated in the same basic way. The procedure is side drilling, scoping, and dialing for dollars. This is easier than it sounds, for precise drill points a good scope, light source, and patience are a necessity.

The tools that you use will determine how quickly and easily the safe or chest can be opened. The reason for side drilling is to avoid hardplate, glass plates, and ruining the lock. Fundamentally, the basic opening procedure is to place your hole on the side of the safe in line with the change key hole. In most cases this measurement will be between 2 to 4 inches back from the door surface.

With the hole drilled in the safe, insert a borescope and align the wheel change key holes with the change key slot in the lock cover plate. As each wheel's change key hole is aligned, read the combination for that wheel at the "change index". This is important. The actual combination will be dialed at the opening index to open the lock, but when aligning the wheel's change key holes, the number is determined at the change index and then transferred to the opening index to unlock the lock.

*Continued on page 166*

**1. The front of the SLS safe, key lock and S&G combination lock.**





Continued from page 164



**2. Unique corner hinge of this TL-30 money chest.**

Sounds easy, and with practice, it is.

An important part of high security safe or chest opening is to accurately quote a price that will reflect your level of expertise. After the customer recovers from the sticker shock, then you can cart in your tool caddie and get to work.

The patient for this operation was a SLS safe as shown in *Photograph 1*. This unit is a TL30, key and combination operated unit. By inserting a scope and measuring the depth of the key hole, we determined that the safe door was about 3 inches thick, and that the lock was not locked. Using the keyhole measuring method lets you determine where you want to drill your hole in the side of the safe or chest.

Not being familiar with this chest, I looked it up in the High Security McOmie book for any hints on how to open. Side drilling was indicated. By looking at the pictures in the book, I had several questions about the relockers. I hope that this article will be a good addendum and show how the relockers work.

*Photograph 2*, shows the non-typical hinges on this safe. They did not look like anything in Dave's book. They are rectangular and unique to this unit. The first thing we (Safebusters International) did was to try and speed manipulate the S&G lock open. The contact points were soft, so we opted for drilling.

*Continued on page 168*



**3. Interior view of locks and relockers. Door in locked position.**







Continued from page 166

**4. Relocker and movable rod attached to main bolt bar. With door in the open position the rod passes through relocking device body.**



When figuring the drill point, the positioning of the combination lock must be used. This lock was mounted VD, so we drilled about 1/4 inch above the centerline of the dial and about 3 inches back from the door surface. This hole was perfect on the hinge side of the safe. We missed the door pins and had a good look at the lock change key hole.

Photograph 3, shows the open door of the SLS money chest. If you look carefully at the door pin on the hinge side of the door to the left, one can see our 1/4 inch hole near the bottom indicated by the arrow.

The top lock is the key lock, and the bottom lock mounted VD is the S&G 6700 series combination lock. There are two remote relocking

devices shown in this picture. The upper one is located between the key and the S&G combination lock. The lower one is directly below the 6730 lock and is attached to a glass plate that activates both relockers.

If the lock is drilled or smashed, the plate will break and both the upper and lower relocking devices are shot into position. When triggered, they block the movement of the rods attached to the primary bolt bar. In Photograph 3, the bolts are in the locked position.

Photograph 4 shows the bolts are in the open position and the rod moving through the non-activated relocking device. When discharged, a spring loaded plunger effectively blocks the movement of the main bolt bar by blocking the entry of the rod through the relocking device. The lower relocker is activated when the glass plate is punched. Attached to this plate is a spring loaded cable that sets the upper relocker off. There is no glass plate under the key lock.

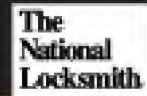
To bypass these diabolical devices, one could locate and drill off the two rods. This would be a major undertaking. If there are any other ideas about destroying these



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*5. S&G lock with mounting bracket and glass plate which protects against punching and drilling lock from front of safe.*

relockers, drop me a line. Hopefully, I will never have to go up against one of these units that have been triggered.

*Photograph 5*, is an inside view of the S&G 6730 combination lock and the glass plate mounting brackets and

plate. Side drilling is the way to go on these units. Do not be fooled, it takes good technique, practice, and good scopes to read the wheels through the key change hole.

Either use a safe at your shop for practice or mount a lock on a make

believe safe door and use your scope to determine the numbers. This technique will be a necessity for all safemen and women in the future. Learn it before you really need it. Scope, Open and Prosper! 

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# Wooden Wonders

by Jake Jakubowski

No one is quite sure when the first Egyptian Lock was carved from a piece of wood, or how long it took to develop the "pin tumbler" principle that was incorporated in the design of the earliest known example of this type lock. Such a lock was discovered in an ancient Persian - now Iraq - tomb by Paul Emile Botta in 1842, and was estimated to be four thousand years old. By the same token, no one is positive of when the first padlock was made, but history teaches us that the

Romans were constructing metal padlocks over two thousand years ago.

In 1988, Tim Detweiler began building working wooden padlocks in Germantown, Ohio. As a building contractor, Tim decided to take a locksmithing course - by mail - so he could rekey locks and make keys for the customers he was building homes for. When he retired from the building industry, Tim continued locksmithing and decided he wanted a sign to direct customers to his shop which was in the basement of his home.

Initially, Tim thought he would like to make a wooden key to advertise his home-based business. Then he decided that maybe a wooden key and wooden lock might have a stronger visual impact. What he wound up with after a number of false starts and many trips to the drawing board, is the padlock that you see him holding in *Photograph 1*. This first padlock is sixteen inches high and uses a bit style key to operate it. However, it does work and does not have a single nail, screw, metal spring or metal fastener in it. The padlock and the key are made entirely of wood!

With the completion of his first working wooden padlock, Tim Detweiler not only launched his third career, he decided to see if he could make his wooden padlocks smaller and refine their construction to the point where they were not only operable but detailed and attractive as well.

The next wooden padlock Detweiler built (similar to the one in *Photograph 2*, but half that size) was only eight inches high. Detweiler then tried his hand at making a working wooden combination padlock (see *Photograph 3*). Like his other creations, the combination padlock is



1. Tim Detweiler holds the first working wooden padlock he constructed.



2. This is a warded padlock and is similar in design to many of the smaller padlocks that Detweiler makes today.

*Continued on page 172*



*Continued from page 170*

totally functional. That is, the shackle will only release when the proper three number combination is dialed. And, like all of Detweiler's wooden lock creations, the combination padlocks that he builds are made completely of wood. No nails. No metal screws. In fact, no metal of any sort. Every working part (even the springs) of every padlock is carved, sawn, cut, shaped, turned or whittled from wood.

As Detweiler customers became aware of his growing inventory of wooden padlocks (he had a dozen or so in his shop and hanging from the

beamed ceiling in his home) they began asking if they could order one for their desk, mantelpiece or as a gift. Detweiler tried to accommodate those folks and build as many wooden padlocks in his spare time as he could. Detweiler found it necessary to fine-tune his padlock construction plans and techniques. He also began exploring the feasibility of working a craft show occasionally to see if people other than his lockshop customers would be interested in his unique padlocks.

Today, having retired as a working locksmith, Detweiler and his wife,



**3. The combination padlock shown here is similar in design to all of his combination padlocks. However, each is unique with different woods being used.**

Charlotte participate in about ten major art and craft shows a year (see *Photograph 4*). To supply the demand for his working wooden padlocks created for those shows, Detweiler devotes most of his time to his new "locksmithing" trade. And, like the manufacturer of any successful product, Detweiler is constantly improving, upgrading and broadening his product line.

*Photograph 5*, is of a working wooden safe. Detweiler designed and built this safe and, yes, it is made entirely of wood, even the wheel pack, fence and lever. It requires the proper combination to be dialed before the safe will open. Not only do you have to dial the correct combination, you have to dial "4-Left", "3-Right", "2-Left", "1-Right"!

So far, Detweiler has made over 2400 working wooden padlocks. If one were to assume an average length of eight inches for each padlock (some are longer, a few shorter) and Detweiler could lay those 2400 plus padlocks end-to-end, Detweiler's line of working wooden padlocks would stretch over the length of five football fields!



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4. Tim and Charlotte Detweiler manning their booth at the Sugarloaf Arts show in Gaithersburg, Maryland.



6. Detweiler's smallest working wooden padlock. The lock is atop this U.S. dime.



5. Detweiler's working wooden safe.

If you recall, I wrote that Detweiler has tried to reduce the size of his padlocks as he goes along. The first one he made was sixteen inches long. The next one was eight inches long. Then Detweiler made one four inches long. Since he is a persistent sort of fellow, he finally made a working wooden padlock that can be completely covered by one thin US dime! The tiny wooden key fits into a key hole, turns, moves a single lever and releases the shackle! (see Photograph 6) I think I can safely say this tiny, intricate and delicate wooden padlock is probably the smallest, working, hand-made, wooden padlock in the world!

Now just in case you might be getting the notion that Tim Detweiler is strictly a padlock man, I want to dispel that idea right here. As you can see in Photograph 7, Detweiler can also turn out workable full-mortise locks complete with deadlock and removable mortise cylinder. This is an amazing replica of an Emhart full mortise lock, right down to the brand name carved into the faceplate. Photograph 8, shows the detail on the inside of the lock case including the working thumb turn. Look closely at the cylinder retaining screw.



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Although you can't really see the detail in the magazine, the retaining screw is threaded. The ball knob retracts the latch and the leaf-type wooden spring (to the lower right of the lockcase) returns the latch to its extended position. The key operated mortise cylinder "locks" and "unlocks" the deadbolt. Is that impressive? Personally, I was impressed!

Although Detweiler did not have it with him, he told me he also constructed a pin-tumbler operated wooden padlock. However, he does not offer that style for sale since it

takes over 80 separate pieces of wood to construct and the time involved in making that lock is not cost effective. Detweiler also told me that he has copyrighted all his plans and drawings, and says that he is continuing to explore new designs for his working wooden locks.

At any rate, the working wooden padlocks that Detweiler designs and manufactures are truly unique. Although they have to be considered a novelty item, they are well made and beautifully finished. If you would like to get one for yourself, or to give as a special and different gift, you can

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7. A full-mortise locks complete with deadlock and removable mortise cylinder. This is an amazing replica of an Emhart full mortise lock, right down to the brand name carved into the faceplate.



8. The inside story of Detweiler's mortise lock. Even the spring is made of wood.

order them directly from Tim Detweiler. To obtain a brochure and price list contact Tim Detweiler at 513-855-3838 and he will send you one. Tell him: "Jake told me to call." **TNL**

# Reed Report

**W**hile Scatter Shooting for April Truit, she was found living in beautiful Kentucky under the name of Mrs. April Clayton Miller. She is raising exotic animals and having a ball doing it.

## Who's the Oldest?

I have heard from a few more shops in our search for America's Oldest locksmith business. We heard from J.R. Shoup Co. in Akron, Ohio which was founded in 1908. However, just a few days later I heard from Cleveland Key shop in Cleveland, Ohio. They were founded in 1869. This is the oldest so far. Let's hear from you. Who can beat 1869?

*Q. If a code number is supposed to be in a certain location on a particular automobile, how come it's not always there?*

A. Many times the code appears on the cars fresh off the assembly line. As time goes on, manufacturers don't always keep up the practice. That is why the writers out there often use the term "most times."

*Q. I am having trouble picking the new Saturn locks. Can you help?*

A. When HUF began making the locks, they reversed the turning direction of the lock to open. Try picking the lock in the other direction.

*Q. I am new to locksmithing and recently learned how to work with the V.A.T.S. system. Now I hear about P.A.T.S. Is this the same?*

A. No. The P.A.T.S., which means Passive Anti Theft System, is completely different. It is for the 8-cut high-security transponder system used on Ford/Lincoln/Mercury vehicles. The difference between the P.A.T.S. 8-cut locks and the standard 8-cut locks is the transponder in the key and the reader connected to the lock. There have been several good articles written on the subject that have been published in The National Locksmith. It may seem difficult, but actually, the P.A.T.S. system is easier to service than the V.A.T.S. system. It's just different. Just remember, the more difficult the lock, the more money you make.



Yours For Better Security,

*Bill Reed*

Bill Reed

## Scatter Shooting while wondering whatever happened to ... Art Steffenberg

*Q. Bill, I have a bone to pick with you. I had the privilege of attending your "Millionaire Locksmith" seminar in Wilmington, Delaware, and you stated you were addressing it to the young locksmiths in the audience (20's, 30's, and 40's). Well, I found the seminar most interesting and immediately went back to my shop and started implementing many of the ideas you threw out. I can already see the positive effect it is having on my business. You mentioned the average time to become a "millionaire" was twelve years. Well I think I can do it in six, so what do you think about that? What bone do I have to pick with you? I am 67 years old.*

A. I think your attitude is the most fantastic attitude I have ever heard since my seminar in Ft. Lauderdale, Florida. It was this seminar that I had a 72 year old gentleman come to me at day's end and chew me out from one end to the other. He said he would NEVER be too old to learn new tricks. More power to both of you. If all locksmiths had this attitude, we wouldn't be a dying industry.

Let me clarify one point. The reason I address the "younger" locksmiths is because they don't realize the full potential. Why? Because they have talked to the "older" locksmiths and they say "no way." Now don't get excited, not ALL of you say that. If you don't believe it can be done, all you have to do is walk into one of the more successful shops and look around. If a locksmith tells you "no way," walk into his shop and look around. It is very possible there is "no way" for him.

We are a changing industry, and to keep up with it so you can make YOUR million, you have to make daily changes. Many "old-timers" don't want to make these changes, so be sure who you are talking to. In the meantime, keep on picking bones with me. That's how new ideas are born. **TNL**

**If you'd like to attend a Bill Reed seminar, choose from the following. For more info, contact Bill directly at (904) 476-2799.**

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Aug. 9	Nashville, TN	Oct. 4	Akron, OH
Aug. 23	Dallas, TX	Oct. 18	Minneapolis, MN
Sept. 7	Chicago, IL	Oct. 25	Indianapolis, IN





# TEST DRIVE!

**m**ajor Manufacturing recently introduced its newest installation tool in the HIT SERIES. The HIT-44 Drill Master. The product is designed for use when installing standard cylindrical key in knob and deadbolt locks on both wood or metal doors.

## DESIGN

The overall design of the HIT-44 is drastically different than other such products. The foundation of the HIT-44 Drill Master is built on a 3" diameter hard anodized aluminum core. The 3" core allows for a greater bearing surface and much improved rigidity over comparable products. The outside bushings are cast aluminum which are machined round. The tolerances between the core and bushing is very tight, giving the HIT-44 a very solid rigid feel. There is nothing that is loose, wobbly, flimsy, skimpy or cheap feeling about this tool. It is well constructed and manufactured.

## DRILLING OPTIONS

The HIT-44 uses a modular system of drill guide/breakout plates allowing a number of drill type choices. It will accept multi-spur bits, auger bits, or hole saws, allowing total flexibility. The guide/breakout plates are easily changed with the removal of three screws. The edge bore, or latch hole diameter is adjustable to either 7/8" or 1" and can also accommodate a multi spur bit with a 1/2" shaft. This is accomplished with the use of quick release bushing inserts of the appropriate size, which are supplied with the unit. These bushings snap right in and pull right out. Quick and easy.

# HIT-44 Drill Master

*by Major Manufacturing*

## BACKSET ADJUSTMENTS

The backset is calculated from the center line of the door and may be changed from 2-3/8" to 2-3/4" with the simple turn of a knob, leaving no loose parts to store, misplace or adjust. The HIT-44 is also self centering by design with the ability to be calibrated in the field to both maintain accuracy and compensate for offset bore the latch holes if needed. This is a very nice feature which allows the installer the ability to vary the edge bore position if desired, assuring precise center of the door placement.

## NON MARRING JAWS

As an industry first, the HIT-44 has soft padded jaws for door protection and greater gripping power on the door. Why hasn't anyone thought of this before? This is a feature that was badly needed on other such products. It does not budge until loosened. Much of this is due to the perfectly square jaws and very rigid design. The padded jaws also greatly contribute to the secure fit.

The non-marring benefit of the padded jaws is also long overdue. I have never been able to use any of the other installation fixtures without marring the door to some degree.

## REPLACEMENT PARTS

Any part on the HIT-44 can be repaired, replaced or adjusted. All



drill guides and threaded shaft holes are lined with bushings to reduce wear and may be replaced if needed.

## PROS & CONS

There are only two negative comments I can make about the HIT-44. One is that it is a bit heavy. It weighs in at about eight pounds. It should also come with a carrying case. This is much too nice of a unit not to come in a carrying case. From what I understand, Major Manufacturing is going to make a case available for the HIT-44 soon, which is to be sold as an option.

## CONCLUSION:

The Hit-44 is not for the casual user. It is also not a product every locksmith will have. Not because they wouldn't want it, but because it is rather expensive. Suggested dealer price is \$335.00. However, if you are looking for the ultimate cylindrical lock installation jig, assuring precise drill placements that is easy to use, flexible, and will last a lifetime, look no further. Plus, it looks great.

For more information on the HIT-44 call Major Manufacturing at: (714) 772-5202. **TM**

## IN SUMMARY:

**The HIT-44 Drill Master is designed for use when installing standard key in knob and deadbolt locks on both wood or metal doors.**

**PRICE: \$335.00**

## TEST DRIVE RESULTS:

**The ultimate cylindrical lock installation jig, assuring precise drill placements that is easy to use, flexible, and will last a lifetime.**